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BALTIMORE, SEPTEMBER 8, 1910.

PSYCHOLOGIC.

Cross-ties of the air line to the insane
asylum have the shape of a great big I.

THE OVERBURDENED COUNTRY.

In view of developments at St. Paul, Minn., on Tuesday in connection with the suggestion that the National Conservation Congress become a semi-political organization, sensible men interested in the welfare of their country may well cherish the hope that the Congress will come to an end with its present session. The country is suffering from a superfluity of such bodies.

SOUTHERN TAXABLE VALUES.

Between 1900 and 1909 the assessed value of taxable property in the fourteen Southern States increased from \$5,266,594,044 to \$9,564,820,894. Preliminary figures for five typical States indicate a marked increase in such values this year over last year as follows:

States.	1900.	1910.
Georgia.....	\$723,481,310	\$765,965,634
Louisiana.....	518,133,175	521,803,621
Tennessee.....	458,639,736	500,944,376
Texas.....	2,308,906,626	2,338,695,554
West Virginia.....	1,062,000,000	1,112,000,000
Total.....	\$5,072,156,847	\$5,270,409,185

These five States show an increase in assessed values aggregating \$198,252,338. They include some of the States which have been making the greatest progress in material things in the past ten years, which progress is ultimately reflected in the basis of taxation. It is hardly likely that the remaining States will show as great a rate of increase in the taxable basis for 1910. But as now appears, the assessed value of property

in the South is quite close to the \$10,000,000,000 mark.

SOUTHERN CITIES AND THE CENSUS.

The population of one hundred and thirty-three cities in 1910 thus far announced aggregates 15,801,557, an increase over 1900 of 4,072,248, or at the rate of 34.7 per cent. Twenty-five of these cities lie in the South and their aggregate population is 798,736, an increase of 240,581, or at the rate of 43.1 per cent. These Southern cities include only two, Washington and Atlanta, having a population greater than 100,000, and only two, Houston and Mobile, having less than 100,000 and more than 50,000 population. They are compared for 1900 and 1910 in the following table:

	1910.	1900.	Per cent.
Washington, D. C.....	331,069	278,718	18.8
Atlanta, Ga.....	154,839	89,872	72.3
Houston, Tex.....	78,869	44,633	75.6
Mobile, Ala.....	51,521	38,469	33.9
Lynchburg, Va.....	29,494	18,891	56.1
Cumberland, Md.....	21,839	17,128	27.5
Jackson, Miss.....	21,262	7,816	172
Temple, Tex.....	10,993	7,065	55.6
Brownsville, Tex.....	10,517	6,305	63.8
San Angelo, Tex.....	10,321
Abilene, Tex.....	9,204	3,411	169.8
Tuscaloosa, Ala.....	8,407	5,094	65
Corpus Christi, Tex.....	8,299	4,703	74.4
New Decatur, Ala.....	6,118	4,457	37.8
Fitzgerald, Ga.....	5,795	1,817	218.9
Bonham, Tex.....	4,844	5,042	-3.9
Denton, Tex.....	4,732	4,187	13
Opelousas, La.....	4,623	2,961	56.6
Decatur, Ala.....	4,288	3,114	37.7
Eufaula, Ala.....	4,259	4,532	-6.4
St. Petersburg, Fla.....	4,127	1,575	162
Kentwood, La.....	3,609	1,313	174.8
Hawkinsville, Ga.....	3,420	2,103	62.6
Buena Vista, Va.....	3,245	2,388	35.9
Russellville, Ky.....	3,111	2,591	20
Total.....	798,736	558,155	43.1

Figures for Baltimore and New Orleans, two of the largest cities in the South, have not been announced at this writing. It is probable that they will reduce somewhat the general rate of increase for Southern cities. In that respect they will not differ from the larger cities in other parts of the country. Of the forty-six outside of the South for which returns have been announced having a population greater than 50,000, every one, save New York, N. Y.; Yonkers, N. Y.; Denver, Col.; Detroit, Mich.; Newark, N. J.; Kansas City, Mo.; Indianapolis, Ind.; Columbus, O.; Bridgeport, Conn.; Des Moines, Ia.; Waterbury, Conn.; Schenectady, N. Y.; Akron, O.; Oklahoma City, Okla.; Fort Wayne, Ind.; East St. Louis, Ill.; Bayonne, N. J.; South Bend, Ind., and Allentown, Pa., show an increase below the average for one hundred and thirty-three cities. But ten of the twenty-five cities mentioned in the South have a rate of increase less than the average for that section, and the largest of these cities, Washington, has an increase of but 18.8 per cent.

Figures of the census published in the MANUFACTURERS RECORD of August 25 dealing with two States, twenty-one cities of more than 100,000 population, seventeen cities of between 50,000 and 100,000, twenty-five cities of between 10,000 and 50,000, twenty-five cities under 10,000 and seventy-nine counties have attracted wide attention. Publication of them was followed by the publication by the census on September

2 of the figures with additions to September 1. Since then other figures have been announced, and at this writing announcements as to 21,463,000 of the population in 1910, about 23 per cent, of the total of the country, not including island possessions, have been made. The addition of the population of Michigan to the total of Rhode Island and Oklahoma brings the total of full States reported to date to 5,094,798, an increase over 1900 of 1,364,809, or 37.5 per cent. Twenty-seven communities having more than 100,000 population and including New York and Philadelphia show a total of 12,829,067, an increase of 3,069,771, or 31.1 per cent.; twenty-three cities of between 50,000 and 100,000 population, 1,622,356, an increase of 492,119, or 43.5 per cent.; forty-five cities of between 10,000 and 50,000 population, 1,150,864, an increase of 393,442, or 51.9 per cent., and thirty-eight cities of less than 10,000 population, 198,670, an increase of 87,561, or 78.6 per cent. Fifty-four counties in Texas, ten in Illinois, ten in Arkansas, six in Nebraska, three in New York, two in Tennessee and one each in Indiana, Colorado, New Jersey and Wisconsin, eighty-nine in all, show 2,317,289 population, an increase of 538,088, or 30.2 per cent. Eliminating duplications, the total to date is 21,463,003, an increase of 5,371,250, or 33.3 per cent.

Additional announcements continue to bring the average rate of increase down to what the final figures will show. Figures available two weeks ago showed an aggregate increase of 40.3 per cent. Those now treated show only 33.3 per cent. increase over 1900. So, for the several groups of communities there is a decline from the preceding exhibit in all save for cities having more than 100,000 population, and for cities having less than 10,000 population.

The Michigan figures contain some interesting suggestions. The increase of population in the whole State between 1900 and 1910 was from 2,420,982 to 2,810,173, or by 389,191, equal to 16 per cent. In the total population of the State the aggregate population of eleven cities constitutes 867,361, an increase of 301,337, or at the rate of 53.2 per cent. Eliminating the population of these eleven cities from the population of the State, there is an increase shown of only 87,540, or at the rate of 4.7 per cent. Michigan is a fairly representative State in its combination of agriculture and manufacturing, and the figures thus far announced suggest what has been going on in the whole country in the past decade, a growth of cities at a much greater rate than the growth of country districts. The larger cities of the country, however, reveal thus far a tendency to growth at a much smaller rate than the smaller communities, the rate increasing as the population is smaller, and the communities under 10,000 population showing the greatest rate of increase of any in the four groups.

AMERICAN IRON AND STEEL INSTITUTE IN THE SOUTH.

The suggestion made by the MANUFACTURERS RECORD that the American Iron and Steel Institute extend its proposed October excursion, which is now planned to include Buffalo and Chicago, to the South has met with very warm approval both in the South and among the iron and steel people. The MANUFACTURERS RECORD fully recognizes that there are serious difficulties in the way of making this excursion this year. Arrangements for the excursion to Buffalo and Chicago have already been planned, and to include the South would make the excursion of such length that very many would not be able to go. The matter will come before the directors and the members for active discussion at the October meeting. The MANUFACTURERS RECORD has accomplished its purpose in stirring up a widespread interest by making this suggestion and presenting it to every member of the Institute. Two plans are feasible. One, to divide the excursion, letting the members make their own decision as to whether they desire to take in Buffalo and Chicago, or whether they prefer the trip to the South. This has some features of disadvantage as well as of advantage.

Another plan would be for the Institute to definitely decide that its next excursion would be through the South. Although this would postpone the trip to the South until next year, it would appeal to so large a number of the members who are anxious to study the South in person that we are sure it would prove one of the most attractive excursions which it would be possible for the Institute to make. In this way a division would be avoided, and next year the Institute could select the South with the assurance that a hundred or more of the foremost iron and steel men of the country would be glad to avail themselves of the opportunity to see with their own eyes something of the marvelous resources of that section of which they have heard so much, but which comparatively few have seen for themselves.

SOUTHERN COTTON-GROWERS NOT INDIAN RYOTS.

Southerners with the sense of humor fairly well developed will enjoy the official report of the reception by Viscount Morley, British Secretary of State for India, of a deputation of Lancashire members of Parliament and of Indian and Lancashire master cotton spinners and manufacturers. The reception was intended to further the improvement and extension of the growth of cotton in India. In the course of an argument Mr. John W. McConnell, seeking to compare repeated efforts to increase the crop in India with the history of cotton raising in the United States, said that year by year the quantity grown in this country has been increased, and at the same time the quality has been so improved that, at any rate, over a

great extent of the best land, cotton can be grown regularly to suit almost any requirement of the spinner. This statement resulted in the following colloquy:

Lord Morley: There is no action by the Government, is there?

Mr. McConnell: The growers are aided by the Government. The Government has experts in every cotton-growing State and four or five experimental farms in every State.

Lord Morley: The State Government?

Mr. McConnell: The principal experimental farm in Mississippi is financed by the United States Government, and the State of Mississippi pays for the other three or four experimental farms. The Federal Government, however, exercises the chief control and direction in all.

Lord Morley: It is new to me.

Return was had to this subject of control of cotton growing in the United States, when Lord Morley said:

I accept, of course, what he describes as the control exercised in some of the States, at all events, by either the State Government or the Federal Government.

And Mr. McConnell said:

I think there is control in all the cotton States.

The confusion of thought in the English mind about conditions in this country, thus exemplified, had a complement suggested in the statement by Hon. Alfred Emmott, member of Parliament from Lancashire, with reference to conditions in India:

Sometimes I am tempted to wonder whether the trade there is organized on the best lines. I am tempted to inquire whether the actual buyer of cotton, who gets it from the ryot, offers him an adequate inducement in the price he is willing to give for the better article as compared with the worst. I venture to think this is a matter which is eminently worthy of inquiry on the part of the Indian Government and on the part of those who are interested in cotton trade.

The ryot is the poor native peasant of India with the burden of English occupation of India upon his back. Solicitude for him, suggesting that he is not meeting English spinners' needs because he is not offered enough money for his crop is very commendable on the part of representatives of Lancashire. They might be immensely benefited and saved from grievous mistakes if they should extend that solicitude to the grower of the South. If the drive against the Southern cotton-grower that has been engineered from Lancashire in the past few years had succeeded, if the Lancashire spinner, attempting to extend his policy so as to gain international support for it, had been able to buy Southern cotton at the price he thought it ought to bring, instead of at the price that would save the grower from loss, the Southern grower would today be approaching the depressed condition of the Indian ryot. Lord Morley grazed the truth of the American situation when he said:

You have to bear in mind that India wants a great deal of its own cotton for its own mills. . . . On an average India requires to retain for its own industry about half of its total cotton crop. . . . That it should have succeeded during the last decade in providing cotton for its own increasing factories and mills, and at the same time increasing its export to the world, is a very notable fact bearing distinctly on the object of your deputation today.

For the benefit of the English spinners, this vital point made by Lord Morley might be paraphrased, and it might be said that it is quite a notable fact bearing directly upon the question of the price to be paid for American cotton that in the past decade the South has succeeded in providing cotton for the increasing demands of its own mills and of other mills of the country, while exporting the greater proportion of its crop to other lands. In 1901 the com-

mercial crop was 10,383,000 bales, of which 3,588,000 bales were taken by American spinners and 6,640,000 were exported. In the year just closed of a total crop of 10,600,000 bales, American spinners took 4,367,000 bales and 6,208,000 bales were exported. In the record-breaking crop of 1904-05, totalling 13,566,000 bales, American mills took 4,446,000 bales and 8,768,000 bales were exported.

As a matter of fact, every pound of cotton grown in the South ought to be manufactured in the United States, at least, if not entirely in the South. Serving as a supplier of raw material to other countries is the most uneconomic and short-sighted policy in the world. In that respect the South is as an owl in the desert and as a pelican in the wilderness. However, as long as the South is looked to as such a supplier, other countries should save themselves waste of time, energy and money by realizing that when the world is asking for 15,000,000 bales of Southern cotton and the South produces but 11,000,000 bales, the world should be willing to pay the naturally increased price and to say, "For what we have received make us duly thankful."

INFLUENCE OF THE NEW YORK TERMINAL.

Today marks the opening to use of the largest and otherwise most notable railway passenger terminal in the world—that of the Pennsylvania Railroad in New York City. It is wonderful not only because of its magnitude, but for the reason that only non-combustible rolling stock will be permitted to enter either the tunnels or the station, and practically every other valuable safeguard to prevent loss of life has been added to the equipment, so that it can be truthfully said to represent the acme of railroad practice at this time, although it may not long be entitled to such a description without qualification, so rapid is the progress of invention with respect to transportation facilities.

The far-reaching influence of this great railroad improvement is seen in the building of trains of steel passenger cars by three trunk lines of the South for the purpose of entering and leaving this new terminal with their through expresses. And it may here be appropriately noted that the opening today is for only local service on the Long Island lines, and not for through service to the West and South. On account of time for providing equipment, and perhaps because of other delays, it is yet indefinite as to when through trains will use the terminal, but official announcement about this will be made later. Specially constructed electric locomotives will be employed; no steam engines will be used either in the tunnels or at the terminal, and it should be remembered in this connection that the first regular use of electric locomotives by a trunk line for handling trains through tunnels and at terminals was in a Southern city—Baltimore—about fifteen years ago, and on the Belt Line of the Baltimore & Ohio Railroad, where such motive power has continued uninterruptedly in use since its adoption.

Had electric power not been applied to railroads on a large scale it is doubtful whether the new terminal at New York would have existed in its present form. It is about 5½ miles from the portals of the tunnels on the New Jersey side of the Hudson river to the other end on the Long Island side of

the East river. There is, of course, a break in the continuity of the tunnels at the terminal in New York, but, with approximately 2½ miles of tunnel length on either side of the station, ventilation of the tunnel with the use of motive power other than electricity would have been almost impossible. Hence, it may be assumed that electric motors were essential to the success of this terminal scheme. The alternative would have been the erection of a mammoth bridge across the Hudson with a span about twice as long as that of the Brooklyn Bridge.

Aspirations of at least thirty years are realized in the terminal opening. The idea of a tunnel under the Hudson so that railroad trains from the South and West should land their passengers in New York City instead of transferring them to ferry boats is old, but its construction was long deemed almost impossible. But, within the last few years, several tunnels have been constructed under the North Hudson and the East rivers, and all are in use, excepting those of the Pennsylvania Railroad, which soon will resound with the noise of many trains. The magnitude of these achievements is such that for long years to come, and may be forever, no railroad terminal problem will be deemed impossible of solution.

Outside of and beyond its general usefulness the New York terminal will be of particular advantage to Southern development. The fact that it compels the extension of the use of steel passenger cars of all classes to through trains between points in the South and the metropolis is a great advance in transportation, one which means that the employment of steel cars in all railroad service in this section must increase.

Moreover, when the proposed connecting railroad from Long Island to the mainland at Port Morris is constructed, there will be established through service between the South and the principal cities in New England, thus making it possible to ride from New Orleans to Boston, for instance, without change of cars.

REFLECTED IN THE PRESS.

Special editions of leading newspapers in the cotton States signaling the close of the commercial year there have surpassed this year previous publications of the kind. They seem to have exhausted every means to present striking pictures of progress in their respective communities and their tributary territories. Mere superficial scanning of their pages is enough to inspire one with enthusiasm for the South as a whole, as they record a multitude of activities in many lines. A few items of the year's review culled here and there illustrate the whole. During the year—

Savannah received 167,062 casks of spirits of turpentine and 612,380 barrels of resin.

Mobile increased its shipments of lumber by 49,729,000 feet.

Galveston spent \$2,879,684 upon public and private improvements.

The municipality and property owners of New Orleans spent \$1,616,000 upon new paving and about \$1,000,000 worth of improvement contracts are still under way.

Montgomery, Ala., did an annual mule and horse business of between \$2,500,000 and \$3,000,000.

Texas planted 293,782 of the 730,752 rice acreage in the country.

State and levee districts in Louisiana

had under contract work representing an expenditure of \$1,712,436.

Gross sales of strawberries under the auspices of the East Carolina Fruit and Truck Growers' Association from 5500 acres of land amounted to \$1,392,880.

Virginia planted crops that will bring an estimated value of \$189,500,000, or \$18,000,000 more than 1909.

On every hand are evidences of the greatest activity in building operations of many kinds, of agricultural development and of extending trade.

ACTIVITY IN SOUTHERN DEVELOPMENT.

In the first eight months of this year there were published in the Construction Department of the MANUFACTURERS RECORD 35,475 items concerning new or progressing railroad construction, building operations and general business and industrial interests. These have been presented in a condensed summary monthly. The statement for August follows:

Synopsis of Construction Department, MANUFACTURERS RECORD, covering the months of January, February, March, April, May, June, July and August, 1910.

Total of items to September 1.....	35,475
Construction.....	29,569
Machinery, Proposals and Supplies Wanted.....	4,876
Burned.....	1,039

January, February, March, April, May, June and July items previously detailed.

August items divided in detail as follows:

Bridges, Culverts, Viaducts.....	103
Canning and Packing Plants.....	21
Clayworking Plants.....	23
Coal Mines and Coke Ovens.....	61
Concrete and Cement Plants.....	14
Cotton Compresses and Gins.....	49
Cottonseed-oil Mills.....	15
Drainage and Irrigation.....	29
Electric Light and Power.....	79
Fertilizer Factories.....	30
Flour, Feed and Meal Mills.....	14
Foundry and Machine Plants.....	35
Gas and Oil Developments.....	45
Ice and Cold-storage Plants.....	21
Iron and Steel Plants.....	19
Land Developments.....	79
Lumber Manufacturing.....	78
Metal-working Plants.....	9
Mining.....	48
Miscellaneous Construction.....	48
Miscellaneous Enterprises.....	170
Miscellaneous Factories.....	210
Railway Shops, Terminals, Roundhouses, Sheds, etc.....	15
Road and Street Work.....	193
Sewer Construction.....	67
Telephone Systems.....	46
Textile Mills.....	108
Waterworks.....	47
Woodworking Plants.....	47

Steam.....	253
Street.....	37

Apartment-houses.....	47
Association and Fraternal.....	25
Bank and Office.....	81
Churches.....	102
City and County.....	86
Courthouses.....	21
Dwellings.....	319
Government and State.....	18
Hote's.....	57
Miscellaneous Structures.....	65
Railway Stations.....	31
Schools.....	182
Stores.....	190
Theaters.....	21
Warehouses.....	53

Burned, etc..... 104

Machinery, Proposals and Supplies Wanted.....	586
	3966

Machinery, Proposals and Supplies Wanted list contains 12 foreign wants, representing the countries of Porto Rico, Mexico, Spain, India, France, Turkey, Africa and China.

FOR THE SOUTH.

A. Pope, traffic manager, Georgia & Florida Railway, Augusta, Ga., writes to the MANUFACTURERS RECORD:

The writer's continuous railway life of 35 years, embracing, since 1905, that relating to the Georgia & Florida Railway, evolved in its present entirety out of various detached properties located in sections of the States of Georgia and Florida abounding in natural forestry and agricultural resources of a high order, enables me to verify by my own experience the eminently correct statements you make as to the Southern States' development.

A. G. Kiser, contractor and builder, Tazewell, Va., writes:

I derive a great amount of pleasure as well as getting useful information from your valuable publication. The recent accounts

of progress being made in the South are especially inspiring, and should be read by all our people. Really, I do not believe that the people of the South appreciate the opportunities we have for material advancement and development, and are not aware of the possibilities of the South.

A NATIONAL UPBUILDER'S PLEA FOR FAIRNESS TO RAILROADS.

Arthur E. Stilwell, builder of railroads and, consequently, an upbuilder of the country, has written a book. He modestly calls it a collection of notes issued at the request of friends. It is a collection of thoroughly characteristic comments with which every reader of it may not agree absolutely, but which are full of practical wisdom that the author is justified by experience in uttering.* As a whole it is a strong plea for conditions that will encourage American and foreign capital to take advantage of the opportunities for it and for the country in investments in railroad construction. Essential to this, Mr. Stilwell calls for freedom from bear raids in financial markets and from political unrest. These evils are blocks in the way of railroads needing to procure funds for extension and expansion of their operations which the country demands, and he places the responsibility for the blocking upon raiders in the stock markets whose practices place by comparison Algerian pirates of the last century in the category of Sunday-school teachers, the disease which he calls "grabitis," that converts the victim into a mere human cash register, and financial Apaches whose operations are such as to bring forth the author's judgment that "we need never imagine that New York may wrest from London its great power as the financial center of the world, unless New York adopts some of London's strict integrity in business." Mr. Stilwell suggests, as remedies, the granting by the State to railroads of a fixed maximum traffic rate effective for a definite period, a national corporation court in a position to guarantee securities, fixed traffic rates for the railroads for fifteen years, the establishment of an organization of men recognized as national upbuilders and the cultivation of a spirit of fairness to the railroads bringing about prosperity for them, for the nation and for individuals.

Strong as are most of the points made by Mr. Stilwell, none is stronger than the following exposition of the overlooked results of railroad building in new territory and of the mutual interests of railroads and people:

Note the Kansas City Southern which I built. It is 800 miles long. It opened up sections of country where previously you could not give the land away. Cities sprang up, which during 10 years have acquired a population of 8000 or 10,000 and assessed values of millions. The great coal belt south of Fort Smith was opened up, miles of long and short leaf pine territory were brought into the market. This land was sold for \$2 per acre before the road went through; now it is sold for \$5 per thousand stumpage, or \$50 to \$75 per acre. Over 100 mills now cut lumber in this territory. Thousands have found occupation where before there was no business at all through at least 500 miles of this territory. Two great oil fields have been developed by the railroad. The coal lands are now worth at least \$1000 per acre. To this we must add increased value of the oil and timber lands. Then there is the great mineral belt of south Joplin. Note the value of town lots where towns did not previously exist.

There is a strip of land 30 miles wide on each side of the railroad where the average increase in values has been fourfold. The coal and oil and the townsites add to this increase, which I have no doubt will reach

\$40 per acre. There are in this strip 48,000 square miles or 30,720,000 acres. If it has increased in value, say, but \$20 per acre, the gain is \$914,400,000; all this is brought to the public by a railroad built by optimists. The railroad created these new values while the owners slept.

Now, suppose the railroad builders in time make, through their judgment, \$50,000,000 or \$75,000,000 above the cost of the road, do not capitalists who had the nerve to bring such increased prosperity to this territory deserve credit, reward and profit?

Is it selfish if the railroad builders ask that they shall be rewarded with one-twelfth of what they have made for others? Capital needs encouragement.

If you want to squeeze the water out of the railroads, do you also want to squeeze it out of the land values? If it is not fair for railroads to prosper, it is not fair that land values (which the roads have created) shall increase. It is not fair to deny the creator of those values unless we deny the created.

What a howl would go up from owners of land in this or in any new railroad's territory if the Interstate Commerce Commission or the State Railroad Commission were to fix the price at which land could be sold. The increased real estate values were made through the courageous investment of capital which built the road.

This is rather a novel way of presenting the facts. It enables intelligence to view the railroad situation from the standpoint of the country through which the road has been built and to realize the justice in owners of railroads deriving some advantage from the immense values that the railroads have created. The man must be mentally or morally blind who would insist that the advantage must be monopolized by possessors of the unearned increment.

THE APPALACHIAN EXPOSITION.

A large section of the South, justly entitled to be called the back-bone of the South, is interested in the success of the Appalachian Exposition, which is to open its doors next Monday. Hardly a year ago progressive men of Knoxville resolved that in their city should be gathered for the information of the country an exhibit of the wonderful natural resources of the Southern Appalachian region. Resolving was followed by intelligent and zealous action, with the result that in a beautiful park have been erected a number of handsome buildings in which have been arranged displays by the National Government, by Southern railroads, by industrial corporations, by firms and by individuals intended to give a comprehensive view of what the Appalachian region has already accomplished and of the material it possesses in minerals, agriculture, timber, water-powers and men for still greater accomplishment. Every citizen of the South within easy distance should take a trip to Knoxville and spend a few days studying the display of Southern resources there made as an encouragement to greater endeavor, and men of means from other quarters should go there to gain practical points as to lucrative investments.

Arthur Wrigley, manager Dixie Seal & Stamp Co., writes to the MANUFACTURERS RECORD:

If our business is a barometer of business conditions, and we think that it is, there will be a great deal of prosperity in the South this fall and winter—the best source of new business that we have results from utilizing your *Daily Bulletin*, as we are enabled thereby to place our catalog in the hands of new concerns, feeling sure that initial orders make permanent customers.

It is reported that Dr. Charles E. Clark of Eau Claire, Wis., has bought 80,000 acres of land near Gueydan, La., which he will ditch and drain and cut into small farms.

SOUTHERN PROGRESS: A CURSORY SURVEY.

[Editorial Correspondence Manufacturers Record.]

Atlanta, Ga., September 2.

A Birmingham man, who had just returned from an automobile trip through New England, commenting on the situation in that section as compared with the South, said:

"I can see more construction work and building operations under way in one day in the Birmingham district than I saw in a two weeks' tour of New England. But I saw more road-building in New England in one week than I could see in this section in three months."

In the main his comment was based on facts. It is quite true that a traveler through New England, impressed as he must be with the marvelous wealth of that section and with what it has achieved, with its splendid roads and the great energy in building new roads, is likewise impressed with the lack of active building operations in and around the leading cities of that section as compared with what is today taking place in the South.

A leading New York business man, who has just made a trip through the West and out to the Pacific coast, and down to Mexico, returning via Birmingham, and commenting on the building activity to be seen everywhere, said to the writer that throughout the South he had found far better business conditions than anywhere in the North or West. "El Paso," said he, "is a type of what is seen throughout Texas and Oklahoma. In it I saw more building activity than I have ever seen anywhere else. I could scarcely walk a single block in El Paso without having to leave the pavement and go out into the street to get around building material, so many are the big structures now under way."

In Atlanta there are evidences somewhat similar, for wherever one turns in this city great business structures, office buildings, warehouses, hotels or splendid dwellings are going up. It is estimated that at the present time about \$4,500,000 of building construction work is under way in this city. No one familiar with the growth of Atlanta during the last 10 years, or with the remarkable building activity which has prevailed during that period, and which seems steadily to increase, ought to have been at all surprised that the census gave to this city an increase of 72 per cent. in population.

Atlanta, however, is typical of very much to be seen all over the South. In Birmingham building activity does not show so pronounced in the down-town business section, where comparatively few large structures are under way, as in Atlanta, although a number of large buildings, including a million-dollar hotel, are projected, and surely Birmingham is in sad need of a thoroughly modern, up-to-date hotel. In this respect Atlanta, Chattanooga, Mobile and dozens of other places throughout the South beat it badly. But when it comes to industrial enterprises, the magnitude of the work which is under way in and around Birmingham amazes everyone who studies it. The American Steel & Wire Co., a subsidiary of the Steel Corporation, is crowding work on its \$4,000,000 plant, while alongside of this great undertaking "Corey," destined for a business and residence town to meet the needs of the thousands of workmen to be employed in and around the various subsidiary plants of the Steel Corporation and other industries in the neighborhood, is being laid out. Corey is a scene of great activity, with 600 men or more busily at work, with all modern facilities for grading, paving and the construction of sewers, while a number of new buildings, both residence and business structures, are

under way. Not far distant preparations are going forward for the building of the great by-product coke-oven plant of the Tennessee Coal, Iron & Railroad Co., to have a daily capacity of 3000 tons. A few miles farther away machinery is in place and the work of building a great dam, to create a seven-mile lake in order to impound 2,500,000,000 gallons of water for the Tennessee Company, is being hurried forward. Not far away a concrete-lined shaft is being sunk, in order to develop a new coal-mining proposition with an estimated output of 3000 tons a day. Whenever one turns vast undertakings of this kind are in evidence. Since the purchase by the United States Steel Corporation of the Tennessee Coal, Iron & Railroad Co., about \$7,000,000 or \$8,000,000 have been expended in the reconstruction of its plants and the enlargement of its operations. The work now under way, and for which some \$7,000,000 or \$8,000,000 have been appropriated, will probably before being rounded up to completion, with all the additional improvements sure to be made beyond those immediately planned, run to \$10,000,000. And even when this vast sum has been expended the work will only have been so shaped as to make feasible a necessary and still broader foundation for future development work. No one can study what the Steel Corporation is now doing through the Tennessee Company and the American Steel & Wire Co. without being impressed with the certainty that all that is now seen is but the preliminary stage for expansion which will be somewhat commensurate with the vast resources of the district and with the ever-expanding market of the South and of foreign countries to be handled through Southern ports. Before the Panama Canal shall have been finished it is quite certain that the Steel Corporation will have either pushed to completion or else have under way a number of great enterprises not yet announced. The logic of the situation compels this, and even though the directors of the Steel Corporation may not yet have decided on such plans they could not, controlling the resources which the Tennessee Company owns, be justified either from the business standpoint or from wise, far-seeing management looking to the utilization of these resources for the best interests of the company and the country, fail to go forward on much broader lines than have yet been made public.

But, turning from Atlanta and Birmingham to the South generally, signs of progress and prosperity are everywhere. Atlanta and Birmingham are only types. You cannot pick up a paper from Jacksonville, or Memphis, or Louisville, or Dallas, or Fort Worth, or Houston, or Galveston, or San Antonio, or New Orleans, without being struck with the activity in building work, with the many new office buildings and warehouses reported from day to day as under way, with the progress in the building of high-priced dwelling-houses, indicating increasing wealth, and with plans announced for enlarging the commercial, industrial and financial operations of these communities. Everywhere these signs of progress are in evidence, and this, too, at a time when by reason of unfavorable conditions in cotton manufacturing, due to the fact that the finished product has not advanced in keeping with the raw material, there has not been the usual progress in the building of new mills, although it is true a large number are under construction. If to the present general building activity there could be added the vim seen in the building of cotton mills and lumbering plants and railroad construction found

*"Confidence, or National Suicide?" By Arthur Edward Stilwell. Publisher, The Bankers' Publishing Co., New York.

everywhere prior to the panic of 1907, the South would be having a boom, using the word in its best sense as indicating great prosperity, such as no part of this section has yet seen.

Returning, however, to the comment of the Birmingham man about good road-building in New England as compared with the South. He was judging the South largely by the situation around Birmingham, where road-building is not being as actively pushed as elsewhere. If he had taken an automobile trip around Atlanta and out through Fulton county he would have marveled at what Atlanta and Fulton county are doing in the way of building splendid roads. Around no city of New England is greater progress being made in this respect. Apparently road-building around Atlanta, which has been making great progress for several years, goes on with increasing energy, and the work is evidently being done in the most substantial manner and under the best engineering skill. In this Atlanta and Fulton county are setting the whole South a splendid example. Though other counties may not be doing as much actual road-building, there is everywhere in the South, with here and there an exception, activity in road construction. There is scarcely a county in which conventions are not being held to urge the building of good roads or further the issuance of bonds for road-building, or to stir the people to the importance of good roads. Nothing else in the whole South seems to be attracting quite so much attention. Out of this agitation and the active work under way in many places there is sure to be developed a road-building era which will prove of inestimable value to the South and be one of the most powerful factors in its economic development. Even the cotton crop, now the center of interest, scarcely attracts as much newspaper discussion or as much talk among farmers and business people as road-building.

And talking about cotton, it is safe to say that this year's crop, in connection with the corn crop, will be a greater stimulus to the South's prosperity than the cotton and corn crops of any preceding year. Last year the South received a splendid price for its cotton, but it paid out many millions of dollars in excess of the usual amount for Western corn, owing to the shortage of last year's corn crop. This section never raises enough for its own needs, but in 1909 the crop was especially short, and that threw upon this section a heavy burden for the Western corn it bought. The extent of this can be understood from the fact that in one little town of not over 1000 population 45 carloads of Western corn were sold. During the year Southern farmers paid from 75 cents to 90 cents a bushel for Western corn when paying spot cash, while many farmers buying on time paid as high as \$1.25 per bushel.

This year the condition has been changed. The South has its biggest corn crop. From almost every cross-roads village throughout the whole central South comes the story of an abounding corn crop. The grain yield will certainly run 200,000,000 bushels above last year's.

A Texas railroad official, thoroughly familiar with the crop conditions of that State, in discussing the situation estimated that Texas crops would yield at least \$100,000,000 in excess of last year, while the First National Bank of Birmingham, long known for its careful annual review of the crop situation based on close investigation, estimates that Alabama's crops will this year be at least \$40,000,000 in excess of last year. These States are typical of the whole South. If the cotton crop should by exceptionally good weather during the balance of the season give a large yield, it would still not be beyond the

world's requirements, and it should command a high price and bring a larger total than this section has ever received for a cotton crop. If unfavorable weather should cut short the yield and give us another small crop, it is certain that the world's demand would force a price which would bring a still larger aggregate than that received for last year's. Under these conditions and with the grain crop added, with exceptional yields of fruits and vegetables, the next 12 months must of necessity be a period of much prosperity to this section. It is possible that unwise

political agitation outside the South, affecting national affairs, the chief danger which the business interests of the country now face, and some less important, but still dangerous to prosperity, local agitation in the South may affect business interests; but whatever may be the condition throughout the country at large, a study of the South indicates that relatively it will have greater prosperity, will make greater progress in material development and show more widespread building operations than any other section in the land.

R. H. E.

TO EXHIBIT THE APPALACHIAN SOUTH.

[Special Cor. Manufacturers Record.]
Knoxville, Tenn., Sept. 6.

A most comprehensive exponent of the progress that is being made by the eight States of the Appalachian region will be presented in the Appalachian Exposition to be held in this city, September 12 to October 12. The exposition includes exhibits from and conserves the interests of resources, commerce and industry of Tennessee, Virginia, West Virginia, Georgia, Alabama, North Carolina, South Carolina and Kentucky. People in these various States are manifesting no ordinary interest in the great project, and indications are that they will be in attendance at the exposition to the number of 400,000 or more.

Mr. William J. Oliver, one of the most energetic and most successful men of the South, is the president of the Appalachian Exposition Company, and is surrounded by a strong organization. Sanford H. Cohen, formerly of Augusta, Ga., is the assistant to the president, and in that capacity he has done effective work developing the details of the Exposition. It has been the purpose to have every feature of the Exposition complete and every exhibit in its place on the opening day, and this will be realized largely as the direct result of the manner in which the Exposition has been organized.

Special attention has been given to exhibits of coal, iron, marble, zinc, lead, copper, gold, silver and numerous other natural resources that are found in the Appalachian States. These, together with the extensive and representative forestry display, will be installed in the forestry and minerals buildings. The Appalachian Park bill, which is before Congress, contemplates the conservation of the timber resources of the Appalachian mountain section, and likewise the improvement of the navigable streams which penetrate these mountains, thereby aiding in the development of the latent resources of the Appalachians. It was largely in the interest of the crystallization of sentiment in behalf of this proposed legislation that the Appalachian Exposition was conceived. That it will exert a salutary influence to that end is not doubted, for already thousands who hitherto have given little attention to these conservation and development projects are now deeply interested as a result of the Appalachian Exposition propaganda.

The industry and commerce of the Appalachian States will have a conspicuous place in the Exposition. Artistic buildings are now being filled with displays fresh from the busy scenes of manufacture and the progressive marts of the South. Applications for space have come from many other parts of the country, as well as from the cities, towns and hamlets of the Appalachian States.

Not only will the exhibit features, characteristic of commerce and industry be shown, but the live stock, pet stock and poultry of the Appalachian regions will

also form a most important part of the great show. A special building has been erected to accommodate these exhibits, in conjunction with which are large stock sheds of modern type. A "show ring" with amphitheater is also provided in which the stock exhibits, etc., will be held, notably the great horse shows and similar events. Handsome prizes have been offered in these departments, the cash prizes aggregating far into the thousands of dollars. Twenty silver loving cups are offered as premiums in the poultry department. Amusement features have been contracted for.

President Taft will be among the many visitors to the Exposition, and Secretary of Agriculture Wilson, Postmaster-General Hitchcock, Senators Taylor and Frazier, Governor Patterson and the Governors of other Appalachian States are also expected. Governor Patterson will participate in the opening formalities.

The women of the Appalachian region have manifested a great interest in the Exposition. A building has been erected especially for the exhibits that are gathered by the woman's board, and which represent the product of women of the Appalachian States. These exhibits will include domestic science, arts and craft work, paintings and other works of high art, articles of rare historic value, etc., etc. A number of women's congresses will be held in the Exposition convention hall, which will bring together some of the most brilliant women of the South and nation.

An exhibit of value, and one reflecting credit upon the race, will be that in the negro building. This structure, designed by a negro architect, erected by negro labor and contractors, and furnished by negro artisans, will house nothing but exhibits of the work of negroes. It will be the headquarters for all negro visitors to the Exposition, and it will also be the object of much interest on the part of white people. The negroes of the Appalachian States are making marked progress every year, and their display at this Exposition will testify in a manner most convincing what they are accomplishing. The negroes have a separate board, and while working under the general direction of the executive department of the Exposition, the details of their building and their exhibit have been worked out among themselves.

The railroads have favored the Appalachian Exposition in granting it the lowest rates ever known for a Southern Exposition. The rates approximate one cent per mile. This concession, together with the show offered and the widespread interest in the Appalachian Park project, will combine to make the Appalachian Exposition a success. It will leave an impress which will be for the good of the South for many years to come.

Commercial clubs of Kentucky will meet at Louisville September 16 for the purpose of organizing a State Federation.

Firmer Iron Market.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., Sept. 5.

There is a decidedly better tone to the whole pig iron situation, and especially the firmness of price. The furnace companies of the Birmingham district are firmly holding out for \$11.50 per ton at the furnace, and sales on this basis are being made right along. Several round lots were booked last week, and in addition to inquiries thus far this week, quite a tonnage is pending. Buyers have shown their faith in the market by their recent heavy bookings, especially the plow and pipe interests. Now and then one hears of \$11 iron, but actual sales at those figures cannot be located. Some Tennessee irons have been sold as low as \$11.25 per ton at the furnace, but as far as can be ascertained the tonnage was light. There is a hopeful spirit present that the opening of the fall trade will usher in a substantial buying movement. The stocks on furnace yards are decreasing, and production is very much curtailed. Since the first of the present year, to the present time, there has been a wide swath cut in furnace stocks. Charcoal iron is quoted at \$22 per ton at the furnace.

The water pipe market is about in keeping with the pig iron market. There has been no cut in price, but the business transacted is not as brisk as one might wish for.

The old material market continues to drag. Dealers are taking advantage of the very low prices prevailing, and where owners are willing to part with their junk it is promptly taken off their hands. Only nominal prices are quoted, and there is really not enough business to test the market.

Mr. Herman E. Boyer, Pittsburg representative of the Southwark Foundry & Machine Co. of Philadelphia, Pa., has resigned his position and accepted position of manager of the Birmingham Machine & Foundry Co.

The Call "Back Home."

[Special Cor. Manufacturers' Record.]

Johnson City, Tenn., September 2.

Since the announcement of the "back home" call to Southern-born people now living in other States, by the industrial department of the Carolina, Clinchfield & Ohio Railway, interest in it has grown apace. Preparations are under way for the establishment of colonies for the "home-comers" in each of the four States operated in by the railway—Virginia, Tennessee, North and South Carolina. Complete details of these colonies will be announced when they are fully worked out.

A conference of the industrial agents of some of the railroads will be held this month, in which a coherent plan will be adopted for the prosecution of the plan.

The feeling here and in the different communities along the Clinchfield route is that by working together the railroad and the people can bring "back home" a large number whom wanderlust has driven away, and that life in their native country can be made as attractive to them as it was formerly one of discontent.

Deeper Waterways Association.

The Atlantic Deeper Waterways Association at session at Providence, R. I., elected Congressman J. Hampton Moore of Philadelphia, president, and A. B. Burke of Philadelphia, secretary and treasurer, and elected Richmond, Va., as the place for next year's meeting. The association favored the building by the Government of inland waterways connecting Maine and Florida.

THE COTTON SITUATION IN EUROPE.

By ALFRED B. SHEPHERSON of New York.

[Written for the Manufacturers Record.]

My visit to Europe has fully convinced me that the business of the European manufacturers of cotton is generally dull and depressed in consequence of the high prices for the raw material which have prevailed for some time and the utter inability to induce purchasers of yarn or cloth to buy, except very sparingly, at prices near a parity with the market for cotton.

With the exception of Russia, where the business is quite satisfactory, the conditions for the cotton manufacturing interests are practically the same all over Europe.

The stocks of goods and yarns are generally very moderate, and the stocks of cotton held by spinners are quite small.

The present outlook is far from cheerful, but the very moderate stocks of cotton and of goods and yarns will surely prove important factors for the future stability of prices.

Business in other lines is satisfactory. Wages are fair, and the number of unemployed workmen less than usual. The depressing element is the high price of cotton, coupled with the general belief entertained by manufacturers, dealers and consumers that it is chiefly due to speculative manipulation of the markets for "future deliveries," and that when this manipulation ceases the price of cotton will decline to a level at which the mills can manufacture it and find ready sale for their product at prices satisfactory to the mills and the dealers and consumers.

The European conditions seem favorable for an active resumption of business in cotton yarns and cloth, which means also a liberal demand for the great staple itself as soon as there is a readjustment of prices.

The prolonged inactivity of trade has induced many mills to run on "short time," causing a serious curtailment in the consumption of cotton by the European spinners.

For the season of 12 months just ending, the consumption of cotton by the British mills will be about 420,000 bales less than the previous season, and that of the Continental mills about 250,000 bales less than last season.

The consumption of the United States mills will probably prove to be about 700,000 bales less than the previous season.

The British cotton mill owners and their operatives, through their controlling associations, have recently made an agreement that the present rate of wages of the operatives shall remain unchanged for five (5) years from July 15. The present wages have not been exceeded but once in many years. This important agreement will prevent "strikes" by the operatives or "lock-outs" by the mill owners for the next five (5) years, and will greatly tend to promote the stability of the market for cotton and its manufactured products. Of course, the markets will not be disturbed hereafter by rumors of strikes.

The agreement will not prevent mill owners from running their mills on "short time" when they think it best to do so in order to prevent the depression of prices by the accumulation of too large stocks of yarns and goods, or for other reasons. At the annual meeting on July 22 of the "English Federation of Master Cotton Spinners" (composing a large majority of the English mills) the following resolution respecting "short time" was adopted:

"After fully considering the present

state of trade and the amount of 'short time' being worked, it is our opinion that such 'short time' should be continued, and, where possible, increased."

As the general state of trade improves, the running of "short time" will be lessened until the mills will, before long, let us hope, be running all of their machinery on full time.

The visible supply of cotton of all kinds on August 26 was 1,019,000 bales, against 1,717,000 bales on the corresponding date of 1909, and 1,307,000 bales in 1908.

The visible supply of American cotton on August 26 was 738,000 bales, against 1,439,000 bales on the corresponding date of 1909, and 965,000 bales in 1908.

With European cotton merchants and manufacturers the chief matter of interest at present is the probable size of the American cotton crop now maturing, and I assume that the same line of thought prevails in the United States.

The acreage is probably the largest ever planted, and its careful cultivation has never been excelled.

So much depends upon the date of the first killing frosts this year that before their occurrence it would be unwise to attempt to reach any positive conclusion respecting the final outcome of the crops. With well-deferred frosts, the crop may prove to be more than sufficient for all legitimate requirements, and leave a good surplus to replenish the present moderate stocks of the world's markets and mills. The extent of the crop and its spinning quality will largely depend upon the weather conditions hereafter.

The most recent advices regarding the growing cotton crops of India, Egypt and the Asiatic provinces of Russia are very favorable, and indicate considerably larger yields in Egypt and the Russian provinces and the East Indian crop fully as large as the record crop of last season.

While I do not anticipate any "cotton famine" or "famine prices" for the coming season, I think it reasonable to expect an active business by the European and American cotton mills, causing so good a demand for cotton as to insure fully remunerative prices to the American cotton growers.

The present good prices will doubtless cause an unusually large quantity of cotton to be marketed in September and October by our Southern farmers, and under the weight of these heavy receipts it would seem difficult to keep the price beyond the reach of spinners, unless some unfavorable conditions should develop in the progress of the crop. The recent very serious losses to the cotton trade through fraudulent bills of lading for cotton purporting to have been shipped from the South have caused much concern respecting the methods of shipments for the coming season.

European receivers of cotton insisted at first that the correctness of Southern bills of lading for shipments from interior points should be guaranteed by the banks at these places. When it was explained that the charters of the banks would not permit them to give such guarantee, the European receivers then claimed that the exchange brokers should guarantee the correctness of the bills of lading.

At present the European receivers are still desirous of this form of guarantee, though it has been pointed out to them that the brokers could not guarantee the validity of the documents without being fully paid for the risk, and that many exchange brokers were not financially re-

sponsible to the extent that their guarantees would be very valuable.

The last proposal from the United States on the subject is that all interior bills of lading for cotton for shipment to Europe should be countersigned by a higher official of the railroad than the local freight agent. Some such arrangement as this would probably, after a little delay, be accepted by European receivers of cotton as satisfactory.

Should bills of lading for through shipments of cotton from interior towns of the South to Europe be countersigned by the "division freight agent" of the division of the railroad in which the point of shipment is located, and the railroad assume full responsibility for the shipment, the guarantee for the transportation of the cotton would seem to me to be perfect. This plan would involve very little delay,

and the validity of a bill of lading of this kind would be absolute.

Assuming that the local freight agents make daily reports to the division freight agents of all cotton received at their stations, the record books of the division agents would always show if the cotton represented by the bills of lading sent for their signatures was in the actual possession of the railroad.

I do not think the matter of the forms of the bills of lading used for shipments to Europe will interfere appreciably with the marketing and shipment of the American cotton crop, but until the subject is definitely and satisfactorily adjusted, it is probable that the bulk of the shipments to Europe from interior points in the South will be made by firms of high standing and unquestionable responsibility.

Liverpool, Eng., August 27, 1910.

AMERICAN COTTON CROP, 1909--1910.

By COL. HENRY G. HESTER.*

The cotton crop of the United States for the year ended with the close of August, 1910, amounts to 10,600,668 bales, showing a decrease under that of 1908-1909 of 3,215,789, under that of 1907-1908 of 962,298, and under that of 1906-1907 of 2,901,314 bales.

Of the decrease compared with last year, 77 per cent. was in Texas and the group of "Other Gulf States," and 23 per cent. in the group of Atlantic States.

The figures are: Texas, under last year (in round numbers), 1,143,000 bales; the group of "Other Gulf States" (embracing Louisiana, Mississippi, Arkansas, Tennessee, Missouri, Oklahoma, Kansas, Arizona, New Mexico, California), under last year, 1,337,000; the group of Atlantic States (including North Carolina, South Carolina, Georgia, Florida, Kentucky and Virginia), under last year, 735,000 bales.

These constitute the face of the figures, but, considering the falling off in weights, which averages 6.68 pounds per bale, the decrease is equivalent to 138,000 greater in bales of last year's crop. In other words, the present crop is equal to 10,472,000 bales of last year's weight.

It has been six years since we have had a ten-million-bale crop, but the difference between then and now is that for the five-year period prior to 1903-1904 the average yearly production was 10,500,000 bales, while for the five-year period up to 1908-1910 the average has been 12,764,000; hence, while 10,610,000 now spells "famine," then 10,911,000 meant only a "short crop." Then 10,000,000 was the result of unfavorable conditions; now 10,000,000 can only occur through disaster.

In face of the heavy shortage, however, the grade of the crop has been good, averaging practically strict middling, a bare shade under the last year, but not up to the latter in body and strength and length of staple. The difference is probably best illustrated by the lessened weight of the bales which came in both years from the same-sized gin boxes.

The average price per pound, of 14.37 cents for middling, compares with an average of 9.45 cents per pound last season, and 11.42 cents the season before. The highest figure for that grade was 15½ cents on the 31st day of December, 1909, and the lowest 12 3-16 cents on the 13th of September, 1909.

These are averages for markets in the Cotton Belt, representing values at first hands, and do not, therefore, take in price ranges at New York, Boston, Philadelphia, Providence, etc., which are distributing centers mainly for cotton that has changed

*From his annual review as secretary of the New Orleans Cotton Exchange.

hands one or more times before it leaves the cotton States, and the quotations of which, therefore, by reason of this and their distance from the sources of production, include numerous extra costs and transit charges which do not enter into the actual value of the cotton itself.

As a rule, however, high prices in New York or Liverpool have a favorable influence in Southern centers, and the facts that spot cotton in New York in the month of May touched as high as 16.05, in June as high as 15.40, in July as high as 19.75, are too important to omit from the record. They are the most significant results of a shortage in supply which reached the proportions of a famine.

The average commercial value of the bales was \$73.41, as against \$49.46 last year, \$58.10 the year before, and \$53.02 in 1906-1907.

The money value of the crop was greater than any ever before produced, the total (not including the cottonseed) reaching \$778,894,005, showing that while the quantity of cotton marketed was in round figures 3,216,000 bales less than last year, it brought \$95,099,601 more.

The total value of the crop compared with the previous five years is as follows:

	Bales.	Values.
1909-10.....	10,600,668	\$778,894,005
1908-09.....	13,825,457	683,794,494
1907-08.....	11,571,966	674,285,093
1906-07.....	13,519,982	716,352,265
1905-06.....	11,345,983	641,720,435
1904-05.....	13,565,885	628,195,359

As stated in my last annual report, these values are based on actual transactions from week to week and month to month as the cotton crop was marketed, and compared with computations made by the secretaries of other exchanges at leading Southern trade centers.

The values stated for the commercial crops are for cotton only, and do not, of course, include the value of the cottonseed, which, however, constitutes a very important item. For example, the crop for the past year, as stated, was \$778,894,005, to which, if the value of the cottonseed, \$124,000,000, were added, the actual wealth-producing capacity of the Southern cotton farms would be \$902,894,005. Last year, 1908-1909, the value of cotton produced was \$683,794,494, and the cottonseed was valued at \$92,000,000, making a total of \$775,794,494.

The foregoing values show a material difference from those stated by the Census Department, which may be accounted for in part by the fact that the Government data is made up at least five months before the season closes, when a considerable percentage of the crop remains to be disposed of.

In figuring out an approximation of the actual growth, I find that, as the result

of the high prices, the interior has practically been "swept clean," farmers having little or no old cotton left over; Southern mill stocks also are smaller.

While the financial results of this crop have proven so highly beneficial to the planting interests, the same cannot be said of the milling industry.

The consumption of American cotton on both sides of the Atlantic and across the Pacific amounted to 11,774,000 bales, a decrease under last year of 1,383,000, and under the year before of 338,000.

Of the decrease under last year, 545,000 bales is credited to American mills (326,000 North and 219,000 South), and 838,000 to foreign mills.

Canada took of our cotton 13,102 less than last year and 10,138 more than the year before.

We sent to Japan and China 105,793 bales less than last year and 95,564 less than the year before.

Shipments to Mexico amounted to 18,831 bales, against 52,928 last year and 5872 the year before.

The importation of foreign cotton during the year amounted to 80,590,197 pounds, of which 4,850,526 pounds were re-exported, leaving the net amount retained in the United States 75,739,671 pounds, equivalent to 149,500 bales of American cotton of this year's average weight, against last year 81,272,899 pounds, equivalent to 153,333 bales American weights.

These figures cover period from September 1, 1909, to the close of August, 1910, embracing the entire commercial year, the August totals having been kindly telegraphed me on the last day of the month by the collectors of every port in the United States.

This shows a decrease under last year equal to 8833 bales of American weights, a large percentage of which was consumed as elsewhere shown.

American mills North and South have had an unsatisfactory season, though they seem for the most part to have taken nearly every bale from the depleted crop that they could get. There was an endless discussion of stoppage of mills, short time and an interference with consumption by high prices, and while all of these were, to a certain extent, founded on fact, it is equally true that every bale of cotton grown in the United States was consumed at home and abroad, in addition to nearly 1,200,000 bales of the visible and invisible balance carried over from last season.

Some of the mills did well, but most of them complain of the difference between

the cost of the raw material and the manufactured article, which, especially during the last half of the season, not only rendered it impossible for them to "make a new dollar for an old one," but in many cases was claimed to have entailed actual loss. In reference to short time, there was no concert of action, though there were constant rumors to that effect throughout the season, and whether they made money or not, the facts show that, as a whole, the decrease in consumption was due more to lack of supplies than excess of price.

One of the most interesting features is the widening of the differences between the quantity of American cotton consumed North and South. Three years ago consumption in the cotton States was ahead of the rest of the United States 220,000 bales; last year the excess was narrowed to 60,000, and this year it has again increased to 170,000. This, of course, refers entirely to American cotton. The North used of foreign cotton this year the equivalent in this year's American weights of 135,000 bales, while the South used the equivalent of 15,000; but even with these added the South is ahead in both American and foreign cotton to the extent of 50,000 bales.

In the South many of the mills were experimenting for the first time with small amounts of East Indian cotton, and while the aggregate as shown was not large, all of 74 institutions used various descriptions of foreign, against only 12 last year. Concerning the present outlook in the North, it is claimed that many of the mills have been forced to curtail their production one way and another about one-third. In the South 157 active mills, with 1,332,651 spindles, were closed down during the month of August, while many other concerns are running only a part of their machinery. These conditions could hardly be otherwise, in view of the paucity of the supply. There is a feeling of hopefulness for the coming season, and a belief that a material improvement may be looked for in the near future.

The consumption of American cotton by Northern mills, compared with last year, has been, in round figures, as follows (000's omitted):

	This year.	Last year.
Northern mill stocks beginning year.....	480	300
Takings.....	1,994	2,680
Supply.....	2,474	2,980
Consumption.....	2,174	2,590
Mill stocks close season.....	390	480

North and South the aggregate consumption of American cotton was 4,515,000, but

they used, as before stated, about 150,000 bales of foreign cotton, making their consumption of all kinds reach 4,665,000.

For the fourth time in 21 years the yearly returns of cotton consumed by Southern mills show a decrease. Otherwise, year by year, there has been a marked advance, and for no years have the additions been so great as in those immediately succeeding a decrease. Thus, in the year 1893-94 there was a drop of 25,333 bales, which was followed in 1894-95 by an increase of 144,323 bales; in 1903-04 there was a decrease of 81,477 bales, succeeded in 1904-05 by an increase of 244,253 bales; in 1907-08 (the year of the panic) Southern mills consumed 245,831 bales less than the previous year, but this was immediately followed in 1908-09 by an increase of 396,596 bales. Last year (1908-09) was the largest on record, constituting the close of the second decade commencing with 1889-90, with a net increase for the 20 years of 2,012,979 bales, bringing the South to the front rank of cotton-consuming sections of the world.

Reference is made to the increase of cotton manufacturing in the South over the North, the natural outcome of economic conditions, which was certain to occur sooner or later. This is not a question, however, of the North and East losing their business, but is rather a matter of increasing American consumption, with the larger share of the increase coming Southward.

Even with the unfavorable year through which we have just passed, the spindles in the active mills have increased 454,686, and there are now building 26 mills, with a total amounting to 327,672 spindles.

This is not up to the phenomenal showing recorded year by year before the panic, but is still an indication of handsome progress by the South in the direction of manufacturing her own cotton.

For the year just closed conditions have been the reverse of favorable. In all, 2,341,303 bales were consumed, against 2,559,873 last year and 2,193,277 the year before, a decrease of 218,570 under last year and an increase of 148,026 over the year before. Few mills have run full time, the stoppage of more or less machinery having been general, varying from a few days at a time to several months. This, with resort to finer numbers by some of the larger institutions, has reduced the average consumption per spindle to the smallest on record in the South.

In addition to the spindles that were

idle throughout the year, amounting to 245,048, against 234,971 last year, and stoppages from time to time during the year, there were, of the active mills shut down entirely during August, in

	Mills.	Spindles.
Alabama.....	12	95,712
Arkansas.....	1	7,264
Georgia.....	23	176,786
Kentucky.....	6	61,529
Louisiana.....	6	80,936
Mississippi.....	4	35,549
Missouri.....	2	13,269
North Carolina.....	72	510,622
South Carolina.....	20	298,477
Tennessee.....	6	32,131
Texas.....	3	16,591
Oklahoma.....	1	5,869
Virginia.....	4	29,061

Total active mills closed August, 1910.....157 1,332,651
*Reorganizing.

Perhaps the best indication of the present situation is the statement that the August consumption by Southern mills was 145,483 bales, against 201,487 last year, a decrease for the month of 56,004.

Referring to details, I desire to emphasize the fact that they are in no sense guesses or estimates. The list of mills in the South was made up after many weeks of patient and careful investigation by correspondents in every State and by comparison with the "Blue Book," just issued, which is a standard mill directory, so that I have had the benefit of the latter's investigations, as well as my own experience of many years in locating the mills. Every mill in the South has reported to me direct but nine out of 838 regular cotton mills, and these (of which I have obtained data sufficiently close to cover all the purposes of an actual census) used but an infinitesimal fraction of the total quantity consumed. In addition, I have secured returns from every woolen mill, batting and mattress factory, and every knitting mill that has spindles and used raw cotton. In fact, I have knocked at the doors of every institution of any kind in the South that uses raw cotton, and have invariably met with kind and prompt responses.

In the past 10 years the value of the output of manufacturing plants at Roanoke, Va., increased from \$5,709,000 to \$16,000,000, according to the estimate of Secretary W. L. Shaffer of the Chamber of Commerce.

Assessed value of real estate at Lynchburg is \$4,697,065 greater this year than in 1905.



ROANOKE BAPTIST COLLEGE, DANVILLE, VA.

Now being erected; four stories; 45x163 feet; cost \$45,000; ordinary construction; red brick and stucco; freight elevators; steam heat; first story concrete walls; architects, McLaughlin, Pettit & Johnson of Danville and Lynchburg; contractors, Harwood & Moss of Newport News, Va.



COOKE COUNTY COURTHOUSE, GAINESVILLE, TEXAS.

In course of construction; fireproof; brick and stone; electric lighting; building to cost \$150,000 without mechanical equipment; steam-heating plant will cost \$5000; contractor, M. P. Kelley of Gainesville; architects, Lang & Witchell of Dallas, and Garrett & Collins of Gainesville.

THE DRAINAGE OF THE MISSISSIPPI DELTA--I.

By ARTHUR E. MORGAN, Associate Member American Society of Civil Engineers and member of the Morgan Engineering Co. of Memphis.

[Written for the Manufacturers Record.]

It is said by geologists that the Gulf of Mexico once extended as far north as Cape Girardeau, Mo., at the foot of the Ozarks, and that a rising of the ocean bed lifted a large area above the level of the sea. Through this broad flat surface, known to geologists as the coastal plain, the Mississippi and other rivers have cut channels on their way to the sea, continually overflowing and building up their banks by the deposit of soil carried from the high-

cultivation, but after this stage of development was reached little further improvement took place for many years. Before the war the lower Delta was in many places highly developed where the land was sufficiently well drained.

Much land went out of cultivation during and after the war. While some localities have not yet regained their old-time prosperity, other regions which were then waste have had a very great development.



NATURAL DRAINAGE CHANNEL OBSTRUCTED BY DRIFT, ARKANSAS.

lands to the north. For this reason the surface of the land near these rivers and their overflow channels is nearly always higher than that at a distance, each stream being at the crest of a low ridge. The great region which has in the past been covered by overflows of the Mississippi River is termed by geologists an alluvial plain, and is generally spoken of as the Mississippi Delta. It covers an area about twice as great as the cultivated land of

As a rule, the greatest advance has been made in those localities where labor is performed by white men, and where the holdings of land are not in very large tracts.

About 30 years ago the construction of levees on a large scale to shut out the waters of the Mississippi was begun in earnest, and has been continued with various interruptions up to the present time. Even 10 years ago the Delta was for the most part a wilderness. Here and there a

tations were first located as Spanish grants, and had been in cultivation for nearly a century.

Ten years ago the construction of a system of levees for the entire length of the Mississippi had become an established policy, and for a considerable part of the distance embankments had been built, which were effectively keeping back the floods of the river. Five years ago the levee system had become an almost continuous barrier from the upper end of the Delta country in Missouri to the Gulf. Towns were springing up over the whole region formerly covered by river floods, and the lumber industry was assuming large proportions. The narrow ribbons of

into the lowlands, causing floods second only in their destructive effect to the floods of the Mississippi itself. In many instances the construction of levees had shut off the natural drainage outlets, and had created extensive permanent swamps which did not exist before. The interiors of the several basins remained swamps during the greater part of each year, but usually were dried out for a sufficient length of time in the fall to enable the lumberman to obtain a year's supply of timber for his mill.

The first drainage work in the Delta was confined for the most part to undoing the unfortunate but inevitable results of levee construction in damming up small drain-



DREDGING UNDER DIFFICULTIES.

land along the stream fronts had widened by extending toward the interior, and a general awakening was noticeable throughout the entire region. It is not wholly correct to speak of the entire Delta as developing at the same time, for there are some parts in which almost as much land was in cultivation 10 years ago as at the present, and there are even a few localities where less is in cultivation now than at the beginning of the war.

age channels which discharged into the Mississippi River. Ditches were constructed, for the most part with dredges, to convey the waters collected by these channels to other outlets in the interior. While there were occasional discussions among engineers and others concerning the possibility of draining the immense basins behind the levees, it was considered by the public in general, if they considered the matter at all, that the reclama-



BAYOU MACOU, LOUISIANA.

Egypt, has a far more fertile soil, and, unlike the soil of Egypt, produces crops without irrigation, has no general crop failures, and is free from the blight of alkali. It is probable that there is no other body of land of equal extent occupied by a European race which is capable of supporting so dense a population.

With the first settlement of the country by the Spanish and French many small tracts along the river front were put into

logging railroad had been built out into the forests of oak, ash and hickory to provide for the removal of the finest of the timber. On the high ridges along the river and bayou banks, and especially along the Mississippi River front, were long, narrow strips of cultivated land, half a mile or less to five miles wide, mere ribbons through the swamps, occupying the only land which did not overflow during high water. Many of these riverside plan-



CLEARING ALLUVIAL LAND, DEADENING TIMBER AND PLANTING CROPS.

With the approaching completion of the levee system it became apparent that this improvement, while the most important and fundamental of all, would not in itself accomplish the reclamation of more than a minor fraction of the great area which it protected from the floods of the Mississippi. For after the flood waters were removed there still remained the local drainage waters to contend with. Mountain and hill streams poured their waters

tion of these great tracts was not to be accomplished in their generation.

At one end of the Delta, during this time, the lowlands of Southeast Missouri, which were affected but little if at all by Mississippi overflows, were being reclaimed by dredge ditches, and at the other end of the Delta the lowlands in the vicinity of New Orleans were being brought into cultivation by the same methods, and the success of these undertakings led to

the organization of drainage districts, and to the construction of canals about the margins of the other large basins. In some instances, as in parts of Southeast Missouri, where natural conditions were favorable, and where work was intelligently carried on, the results have fully justified the expenditures, and land that a few years ago was on the market at \$1 to \$5 an acre is now valued at \$50 to \$100. The writer recently noted a tract of land in the Little River Valley in Missouri which was sold about 10 years ago for \$1.25 an acre, and which recently brought \$100 an acre, the result of successful drainage and of putting the land into cultivation.

The remarkable results following successful drainage in the Delta have given a sudden stimulus to the movement, and during the last few years a vast number of drainage districts have been organized to complete the reclamation which the first ditches had begun. But while some of the first drainage systems were successful because of the fact that the most readily reclaimed lands were drained first, not all of the efforts have been so fortunate, and a considerable number of the ditches are chiefly valuable as examples of methods to avoid in constructing such work.

Drainage undertakings in the Northern States have been confined largely to reclaiming areas of limited size which can be improved without any relation to each other. In the Delta, however, conditions are far more complicated. Many of the large drainage basins are intricately connected by overflow channels, or by large swamp areas which have served as storage reservoirs for the waters of several streams, and an effort to reclaim a small part of one of the large basins has frequently resulted in damage to some other portion, or has failed to accomplish its purpose because the small area could not be isolated for treatment. The drainage problems of the Delta, some of which are of such difficult character as to tax the best engineering talent which can be brought to their solution, were further complicated by the total failure in many instances of the landowners and public officials to appreciate that there was any difficulty in the work to be done. Some of the largest improvements were put into the hands of local land surveyors who were without experience, and who were not allowed the assistance or advice of consulting engineers. We are informed of one district where a project involving the expenditure of hundreds of thousands of dollars was given over to the care of the village blacksmith. Many of the earlier surveys were made by railroad engineers, who brought with them their ideas of railroad location, and it is not unusual to find along the courses of canals beautifully useless railroad curves combined with sheer monstrosities of drainage engineering. Even with the best of engineering effort it frequently is impossible to reclaim small tracts out of these large areas without going to great expense or interfering with the drainage of other tracts.

As the work of organizing districts and digging ditches has progressed it has become apparent to many landowners, public officials and engineers that the method of digging ditches here and there in these large areas, without having a well-defined plan of procedure, will result in the waste of a large amount of money, and will secure only a part of the benefits desired. It has become apparent that if success is to be secured, each large division of the Delta which, because of its geographical and topographical characteristics, presents a single and indivisible drainage problem should be improved by a single

well-devised and comprehensive plan. This conclusion has not been reached in all parts of the Delta at the same time, and at present there still remains a considerable difference of opinion on the subject. However, as fast as the owners of land are made to understand the necessity for co-ordination of effort in the reclamation of the Delta, the attitude toward comprehensive and unified plans becomes continually more favorable.

Up to the present time more or less definite plans have been made for handling, by a single drainage system, the reclamation of each of five large divisions of the alluvial plain. These are the Delta of the Southeast Missouri east of the Sikes-

ton Ridge, the Little River Valley in Missouri, the St. Francis Valley in Arkansas, the upper Yazoo Valley in Mississippi, and the Fifth Louisiana Levee District in Northern Louisiana. Investigations relative to a general drainage development have also been made in Southeast Arkansas and in West Tennessee. A description of these vast projects will convey an idea of the magnitude of the work to be done. The development of lower Louisiana is not discussed in these papers, as readers of the MANUFACTURERS RECORD have been kept fully familiar with progress in that section, and because that work would be classed more correctly with the reclamation of the Gulf coast lands.

ORGANIZED EFFORT IN CITY BUILDING

[Special Correspondence Manufacturers Record.]

Parkersburg, W. Va., September 5.

The power of organized effort in the matter of city building has never been more clearly demonstrated than in the business and industrial life of Parkersburg in the last few months. Ten years ago, owing to activity in the development of oil territory in this region, Parkersburg was one of the most active and progressive cities to be found anywhere in the country. The streets were full of people, everything was going along with a rush, and the stranger would have guessed the population, from what could be determined from the business portion of the city, at twice its actual number. Then came a reaction that made things appear so stagnant that people of something less than optimistic temperament began to believe the city had begun a permanent retrograde movement. Building almost ceased, empty houses were seen on every side, and a general depression seemed to have taken possession of the citizens. Within the last few months certain of the most progressive spirits of the city began to ask themselves and one another the question: "What shall we do to be saved?" As in other cases, the question asked was half answered, because recognition of the condition stirred the questioner to effort, and effort brings salvation. There had been a Chamber of Commerce in existence for several years, but it had grown stagnant, along with other institutions, and was accomplishing nothing. The first thing necessary was to stir it to life. Successive meetings were held without result, but constant effort at last brought about an enthusiasm that was genuine, and the members became active in trying to save their town. Ex-Governor A. B. White, a live wire in business as in politics, was made president, and William Straus, secretary, and through continued effort the membership was increased to more than 200 aggressive, stirring, virile men, all bent upon the one purpose—to bring Parkersburg out of the slough of despond into which it had fallen.

With the reorganization of the Chamber of Commerce on a war footing and the desire to do things instilled into each individual member, the next step was the raising of an industrial fund of \$25,000 cash and the acquiring of 20 acres of land, conveniently located for factory purposes, to be used in locating worthy and profitable enterprises looking for factory sites. This property, lying a mile or two outside the city, on the traction line between Parkersburg and Marietta, and on the Ohio River Railroad, is most eligibly situated for factory purposes. A siding has been built into it from the railroad, and everything put in readiness to invite inspection by industrial plants.

The first factory outfit to accept the invitation was the Standard Milk Bottle Manufacturing Co. of Mt. Vernon, O.,

which was on the lookout for a new location. The managers of this enterprise came, saw and were convinced that Parkersburg was the right place for them. Terms were quickly made, and a plant that cost \$40,000 has been erected. This takes up three acres of the 20, leaving 17 acres for other concerns. This plant will employ 125 people. As its name implies, it will engage in the manufacture of milk bottles, for which there is a large and ever-increasing demand.

About the time this establishment was secured it was learned that the Baldwin Forge & Steel Co. of Columbus, O., was looking for a new location for its immense plant that had hitherto been working the convicts in the Ohio penitentiary. A number of other places were after this concern, and the competition was somewhat strenuous. But the Parkersburg people would not be denied. They gave the company a site on the south side of the Little Kanawha River, together with a cash bonus, and the consequence is that buildings are now being erected which will, with their equipment, represent an expenditure of \$300,000. There are now employed in constructing the buildings more than 150 men, and it is expected that the plant will begin operations about January 1. After that 400 men will be employed. The Baldwin company manufactures shovels of the highest grade, its product being well known all over the country. The managers declare their plant will be, when completed, the largest and most thoroughly equipped shovel factory in the world.

The Donovan Boiler Works recently moved into Parkersburg from Cairo, W. Va., and put up a fireproof brick building, in which it will begin operations September 1. This is a well-known concern, with a large trade already developed. It will employ from the first about 35 men.

The Parkersburg Machine Co. recently acquired the plant of the United States Engine Co. This property, lying on the railroad and traction lines at the outskirts of the city, is being thoroughly overhauled and renovated, new buildings are being erected and old ones enlarged, and the most up-to-date machinery is being installed. It is expected that the work of renewing the plant will be completed in six months, when 400 men, high-class mechanics, will be given employment in manufacturing and repairing all kinds of machinery.

Of more importance to the city even than the locating of a new industry is the enlargement being made by the Graham-Bumgarner Company. This concern has been engaged here for a number of years in the manufacture of shoes, and its trade has grown until it has become necessary to add largely to its capacity. It is now constructing a five-story brick building 50x

175 feet in area, to be fitted up with all the latest and most improved shoemaking machinery. The present factory force consists of 85 people; in the new factory 250 will be employed. This company has built up a fine trade in the territory tributary to Parkersburg, a fact to which the necessity for the present enlargement testifies more forcibly than words can be made to do.

The Parkersburg Iron & Steel Co., located here several years ago, has enjoyed a success equaled by few establishments of the kind in the country. It manufactures steel sheets, and so excellent has been its management that it has never stopped for a day, running right on through the panic of 1907. The plant gives employment to 485 men, and is located on the river bank, about two miles above the city.

The Standard Oil Co. has a refinery here that occupies 54 acres of land and gives employment to about 300 people. Parkersburg is said to be the birthplace of the Standard Oil organization. It is the entrepot to the Wirt county oil field, one of the first to be exploited, and has been the location of a refinery for many years. The late Johnson N. Camden, a Senator from this State for a number of years, was one of the pioneer oil men of the country, and was one of the first to see the benefits to be brought about by a combination of the oil interests and the consequent economy in production and handling of the product. While the actual organization of the Standard may not have recognized Parkersburg as being on the petroleum map, the idea upon which it is founded undoubtedly took first root here.

A young concern that is rapidly coming to the front here is the United States Tile Works. This plant manufactures roofing tile of a high grade, and its product has found favor in the eyes of builders from New York to New Orleans. Its trade is rapidly increasing, and it has orders booked to keep it going for six months. It employs 40 people.

The most unique and interesting, as well as one of the most important of the manufacturing plants located here is that of the Vitrolite Company of Parkersburg. The company manufactures vitrolite plates and tiling for structural uses, and is running night and day to keep up with its orders. Vitrolite is made of glass sand, much as plate glass is made. It is milk white, opaque, and has as smooth and impervious a surface as glass. It has the advantage for many uses over marble that it is non-absorbent, being thus perfectly sanitary, and is especially popular for use in hospitals for entire interior finishing, as well as for tables, basins and other furnishings. It is coming into general use for interior decorations, mantels, wainscotings, and walls, floors and ceilings for bathrooms, lavatories, kitchens and offices. For mural decorations it fills a place peculiar to itself, in that it may be painted and the pictures burned into the material just as in china, leaving the surface absolutely as smooth as before. When I visited the factory the other day one of the artists had just finished painting a bunch of flowers covering half of a round table top some three feet in diameter, which was then ready for the furnace. This will suggest something of the many uses to which this new material may be put. Just at present almost the entire force at the factory is at work upon the interior finish for the great Jenkins office building now going up in Pittsburgh. It is said the contract price for this work is something like \$200,000. Another use found for it is in the making of signs. A number of the breweries, distilleries and other concerns throughout the country that pay for high-priced advertising are having signs made by the thousand, the handsome colored let-

tering being burned into the vitrolite, which is made into flat or half cylindrical shape, as the patron may order. One question that presents itself naturally to the person who for the first time examines the method of manufacture of this material is that of its strength. Being made of glass material, in practically the same way that glass is made, and having the same brittle appearance, one asks at once if it will break like glass. I asked the question myself. For answer Mr. Sidney Clarke, the manager, took a piece about a foot long and shaped like a druggist's pestle and dropped it on a hearth of the same material. Glass would have broken into small bits. This was not even cracked. A few moments afterward a plaque about 6x8 inches in size fell from the mantel to the hearth, startling those not acquainted with the strength of vitrolite, but failing to make the office force look around. The plaque escaped without a fracture. But an entire letter could easily be written about this most interesting plant, and the more than 50 uses to which the managers say its product can be put. The company began work here a little more than two years ago, and has been so successful that its managers say they will have the largest establishment in the city in the next few years. The plant is to be enlarged to double its present capacity at an early date. Much of the work, and the largest part of the drawing and painting, are done at the Chicago offices of the company, where 500 people are employed. The manufacturing part is all done here.

Parkersburg has long been the situs of large lumbering operations, and a number of big mills are located here. Among these the Parkersburg Mill Co.'s plant is one of the most important. This is a general woodworking establishment, where handsome interior finish is made and shipped to outside points. The mill employs 250 people. The Ohio Valley Bending Co. is another woodworking concern with an important plant here and a branch at Moline, Ill. This company makes poles, shafts and other wagon and carriage findings. The Bentley & Gerwig furniture factory has for many years pursued a profitable career in the manufacture of furniture from the excellent hardwoods coming from territory tributary to the city. The Parkersburg chair factory gives employment to 250 people, and sells its wares far and wide. There are other sawmills and planing mills that have large payrolls and play an important part in the industrial life of the city.

An excellent illustration of the value of a good location, coupled with business ability, is found in the career of the United Woolen Mills, the name under which B. E. Hersch does business. This enterprising gentleman, still on the bright side of middle life, has built up from nothing a manufacturing business that runs now into the hundreds of thousands of dollars annually, and is still rapidly increasing. It is in making men's clothing to order and selling direct to the wearer at moderate prices. In August, 1902, he started business here with two sewing machines bought on the instalment plan. Today he has a plant of his own—purchased about two years ago at a price of almost \$50,000 and costing \$20,000 more to remodel—in which he has 60 sewing machines driven by electric power and running full time. He has several branch houses, but does all the manufacturing here. He employs 175 people, and his sales for the first six months of the present year reached the enormous aggregate of \$146,000. This big thing has been accomplished by three things—enterprise, knowledge of the tailoring business, and the will and ability to advertise. Mr. Hersch

is probably the best advertiser in West Virginia.

The Scott Roofing & Manufacturing Co. has recently come here from Cincinnati, and is pursuing a profitable career, giving employment to 25 people.

Other plants engaged in the machine and supply business, in addition to those mentioned above, are Spence, Smith & Koontz, Kesselman & Co., J. J. Crotty & Co., the Oil Well Supply Co., the Stiles Manufacturing Co., the Parkersburg Rig & Reel Co. The last named company manufactures oil-well supplies exclusively, and has a trade covering the oil territory of the entire world. Russia, Japan, India, wherever oil wells are drilled, machinery made in Parkersburg is found.

Other manufacturing plants are artificial stone works, barrel factory, boat yard, book binderies, bottling works, brewery, brickyards, brush factory, bread and cracker factory, carriage factories, chemical works, cigar factories, cornice works, candy factory, creamery, fiber works, fishing tools works, flouring mills, foundries, electrical sign factory, excelsior factory, granite works, harness factories, ice factories, mantel works, mattress factory, metal-lath factory, mineral-water works, plaster factory, pharmaceutical preparations factory, sucker-rod factory, sanding-machine factory, stovepipe factory, steel roofing and siding factory, cut-stone works, shirt and overall factory, soap factory, upholstering factory, tank factory, wagon factories, structural-tile factory, paper-bucket factory, bottle factory, box factory, handle factory, paraffine and wax works. More than 3500 people are employed in manufacturing businesses. Eight of these manufacturing companies have increased their capital stock during the present year for the purpose of adding to their buildings and equipment, that they may increase their output to meet the demands of the trade.

There are here more than 20 wholesale stores, dealing in almost all kinds of merchandise, and having a wide trade territory. They employ more than 100 traveling men. In the matter of retail stores also the city ranks high, and it is considered an especially good shopping point.

In transportation Parkersburg enjoys unexcelled advantages. By rail it reaches east and west over the Baltimore & Ohio main line, being on the through route between Baltimore, Washington, Philadelphia and New York to Cincinnati and the West. By the Ohio River division of the same road it reaches Wheeling, Pittsburg and Buffalo, to the north, and Huntington, Charleston and other points to the south. Over the Ohio & Little Kanawha division of the same road it reaches Marietta and the Muskingum valley, and by the Little Kanawha Railroad the interior counties of West Virginia. There are few of the smaller cities that are more accessible by rail than is this, and the close touch thus established with the principal cities of the country makes it a most eligible point for business.

But greater than the railroads in its potentialities for the upbuilding of Parkersburg is the water transportation, present and to come. The Ohio River, flowing by the municipal limits, bearing upon its broad bosom the commerce between sections north and south, and furnishing, when properly used, the cheapest transportation for heavy traffic, holds out to this city its brightest hope for industrial progress. Under the present system of governmental improvement, to be carried out at the expense of all the people, the Ohio River will be given a permanent nine-foot stage of water from Pittsburg to Cairo, making one of the greatest commercial thoroughfares in the country. No manufacturing plant in this city but will have

for its market the entire South and Southwest, reached as cheaply almost as the communities lying in the next county. Not only so, but by the canal between the Muskingum River at Zanesville and Cleveland, Parkersburg freight will be enabled to reach the Great Lakes without breaking cargo, and thus will another immense field be opened up to its trade. This canal will soon be completed, and every industry in the city will doubtless feel a new impetus as the immediate effect.

Think what it should mean to the steel business, already found profitable here. The lake ore can be brought to this city by the cheapest known method of transportation, and the boats coming so laden will return with cargoes of coal to meet the tremendous demands of the lake trade. With the unrivaled coal fields of the Little Kanawha Valley, now virgin to the miner's pick, developed as this new demand will cause them to be developed, Parkersburg will leap into pre-eminence as the point of cheapest contact for the ore, the fuel and the limestone necessary to the manufacture of the world's greatest commodity—steel.

Dam No. 18 of the series being constructed by the government has been completed two and a half miles above the city at a cost of \$1,500,000, and is one of the masterpieces of hydraulic engineering in the country. Dam No. 19 is now under construction five miles below. When this latter dam is completed it will make a pool in the Ohio River and the mouth of the Little Kanawha capable of harboring 500 boats. A series of dams to be built by the government—or rather to be rebuilt by the government—in the Little Kanawha will give slack-water navigation for a considerable distance on that stream, and thus open up a fine stretch of valuable trade territory to Parkersburg.

The city has long been known as a strong financial center, and has lost none of the distinction in recent years. It now has 10 banks, three building and loan associations, a bonding company and several investment companies, the combined resources of which aggregate \$13,000,000. The management of these institutions has always been of such excellence that no depositor has ever lost a dollar, while at the same time no worthy business establishment has ever needed to look elsewhere for the financial accommodation to which it was entitled. During the panics that have disturbed the country from time to time the Parkersburg banks have always been able to meet fully their obligations, and no cashiers' checks or clearing-house certificates have been issued in substitution for money. The individual deposits are \$7,000,000 in round numbers, being more than three times the per capita of the average community in the United States.

As a place of residence Parkersburg has always enjoyed an excellent character. Its citizens are educated and refined, and its social life is as pleasant and of as high standard as can be found elsewhere in America. It has an excellent system of public schools, carefully graded and well taught, and graduation from its high school is the open sesame to colleges of high class throughout the country. Last year the average daily attendance at the public schools was 3048.

Supplementing the work of the schools as an educator is the handsome and well-stocked Carnegie Library. It is said that more than 2000 students patronize this library, finding there much information and inspiration in its 25,000 volumes of well-selected literature.

The Blennerhasset Club, the Elks' Club and the Country Club are three social organizations, each with its own elegant building, that lend much to the delight of

life in this city, and the fame of which has traveled far afield. Then there are boating and fishing clubs, a gun club, an automobile club, and numerous kindred organizations, all adding to the pleasure of life in this most pleasant American city.

Parkersburg has well-paved streets, many handsome private residences, a number of well-appointed public buildings, a street-car system traversing its main thoroughfares and reaching far into the surrounding country, and many other institutions of a public and quasi public nature.

GEO. BYRNE.

Brownwood Improvements.

Commercial Club,

Brownwood, Tex., August 30.

Editor *Manufacturers Record*:

During the past year Brownwood has spent in improvements \$300,000 for railways (public subscriptions), \$100,000 for a hotel, \$50,000 public schools, \$65,000 college, including dormitories; \$35,000 extension of water-works, \$75,000 paved streets, \$100,000 good roads leading into town, \$50,000 telephone, \$75,000 electric light, including modern plant; \$80,000 for Government site and building (appropriated), \$10,000 brick plant, \$150,000 bank and office buildings, \$300,000 business buildings, \$750,000 residences. Mr. Brooke Smith is just completing a 12-room business block. During the coming year we will see the completion of two additional railroads and several other industries located here.

D. F. JOHNSON,

Secretary.

Work, Wages and Profits—Their Influence on the Cost of Living. By H. L. Gantt. Publisher, *The Engineering Magazine*, New York.

For 23 years Mr. Gantt, as an engineer, has been an active promoter of the practical application in industrial plants of the philosophy of labor management based upon the conviction that the scientifically-educated engineer, capable of substituting a scientific solution of problems for the empirical solution accepted by the mechanic, must take the responsibility of so training workers that in their increased efficiency a permanent advance may be made toward the solution of the labor problem. Results of his experience, which has been largely pioneer, have from time to time been given to the public in addresses before learned societies, in lectures at universities and in magazine articles. Many of them are now gathered into this volume, which treats in separate chapters of the application of the scientific method to the labor problem, the utilization of labor, the compensation of workmen, day work, piece work, task work with a bonus, training workmen in habits of industry and co-operation, fixing habits of industry and profits with their influence on the cost of living. Mr. Gantt's thesis is that profits on a manufactured article may be increased substantially in only two ways, one by increasing the selling price, the other by reducing the production of cost. He finds that manufacturers have paid more attention to the first, because returns can be measured with greater accuracy, but he points out that increasing prices bring a higher cost of living, a higher cost of living brings demand for higher wages, and higher wages mean greater cost of production. The natural result of such a series of processes is a surplus of prices and a shortage of products. Mr. Gantt urges that more consideration should be paid to the other alternative, that of reducing production cost, and he argues that the engineering profession must be depended on to work out the problem of increased efficiency in production that may be had to the betterment of everybody concerned.

WHAT IS YOUR TOWN DOING?

The MANUFACTURERS RECORD will be glad to receive from responsible correspondents in every town in the South brief items of news about business conditions and the opportunities for industrial enterprises. This information is desired for publication without cost of any kind to the sender, and regardless of whether the writer of the letter is a subscriber or not. The MANUFACTURERS RECORD accepts no paid town write-ups. It seeks information of this kind from commercial and industrial organizations and from municipal authorities in every town and city of the South.

This department is open only to news facts of interest to investors and homeseekers. Communications of 200 or 300 words are likely to be given prompter publicity than more extended ones.

MUSKOGEE'S INCREASE.

Commercial Club,
Muskogee, Okla., August 31.

Editor Manufacturers Record:

In the MANUFACTURERS RECORD of August 25, in your enumeration of the census of cities, and in the class listed between 10,000 and 50,000, you quote Muskogee, Okla., 1910, as 25,278, and in the 1900 column 14,418, a gain of 76 per cent. I desire to call your attention to the fact that the 14,418 represents the result of a special census taken in 1907 at the time the Statehood bill became a law, admitting Oklahoma into the Union, and that the 76 per cent. gain dates from that period. The census of Muskogee, Okla., in 1900, as given in the census, was 4254, which gives us a gain of 495 per cent., of which we are, of course, exceptionally proud.

CLARENCE B. DOUGLAS,
General Secretary.

WANTS FACTORIES.

Commercial Club,
Malden, Mo., September 2.

Editor Manufacturers Record:

Malden is waking up, and proposes to get more perceptibly on the map, and I would like to get in touch with some manufacturing concerns that want a good location for factories using wood, cotton, cottonseed, and also tile factories. The city is putting in a \$30,000 water-works and electric-lighting plant, having outgrown the one that has been in service for several years. The settlement of the drained land in this section is proceeding more rapidly than ever in its history, and the opportunities for safe and profitable investment were never brighter or more inviting than at the present time.

LYMAN F. JACKSON,
Secretary.

FOR A POTTERY.

Catlettsburg, Ky., August 31.

Editor Manufacturers Record:

I note in your list of the different manufacturers and plants you mention clay-working plants. I am of the opinion that this city is one of the best locations in the country for a pottery to manufacture jars, churns, fruit jars and a few specialties in this line. We have a small plant in this city, but it makes no effort to supply the general demand that it already has and could be increased many times. The market for this class of goods at this point is a good one, and a large-sized plant could sell all the ware it could make. We have an unlimited amount of good clay, and anyone interested could secure a hundred years' supply cheap.

J. M. YORK.

WHOLESALEERS NEEDED.

Chamber of Commerce,
Spartanburg, S. C., September 1.

Editor Manufacturers Record:

Spartanburg has added to her equipment in the last few weeks a candy factory, another business college, another coal and coke agency and another wholesale fruit and produce house. As a wholesale and distributing point the city is beginning to be recognized. What is needed is more wholesalers. Shoes, hats, dry goods, notions, etc., are lines most promising of success. As a place of residence for traveling men Spartanburg has few equals,

either geographically or otherwise, and many traveling men are making this city headquarters.

Attention to the country roundabout and to good roads is the chief activity at this time. Plans are now being made for the organization of a "Raised at Home" club in an effort to check the million-dollar annual flow of money from this county to other sections for wheat, corn, meal, flour, hay, meats, etc., that could be produced here at less cost than they are now being produced by those who are selling them to us. In a country where from 100 to 200 bushels of corn can be harvested from an acre of land alongside of that producing two bales of cotton; where just as good wheat, rye, oats, potatoes, fruits, etc., can be raised as anywhere else, there is no need for this yearly parting with so much money.

On September 6 a committee composed of one representative each from this city, Columbia and Asheville will select from four competing sections the official highway from Spartanburg to Newberry, about 60 miles of what will be known as the road from the low country to Spartanburg. Tryon, Hendersonville, Asheville and Knoxville. When selected the official route will be mapped, posted and advertised abroad, and its many advantages set forth to automobilists. The beauties and comforts of this form of travel from Florida to the mountains as the seasons advance will be given emphasis. At Spartanburg this highway will connect with the New York-Atlanta highway, over which automobiles from many distant points are now passing daily.

JOHN WOOD,
Secretary.

LANDING FACTORIES.

The Boosters' Club,
Texarkana, August 31.

Editor Manufacturers Record:

We have just landed a \$200,000 furniture manufacturing plant here in Texarkana. About a month ago we landed a \$100,000 glass plant. There is a great deal of enthusiasm prevailing here at the present time in the way of locating new industries, and things are looking very bright for this city. As you know, here in Texarkana we have natural gas from the Caddo fields at very low prices, and have nine railroads entering the city. We can, therefore, offer fine inducements to manufacturing enterprises.

W. L. WOOD, JR.,
President.

Detailed information about towns seeking manufacturing enterprises and offering specific advantages for development and business opportunities can be found under the head of "Classified Opportunities" on pages 72, 73, 74, and under "Cities Towns and Railroads Inviting Factories" on pages 103, 104 and 105.

The People's Steamboat Co., says a dispatch, has been incorporated at Mobile, Ala., to operate on the Alabama, the Tombigbee and the Warrior rivers, besides Mobile Bay and tributaries. The officers are E. R. Morrisette, president; Owen F. Burke, secretary and treasurer. Other directors are Jack H. Hays, Louis P. M. Rensijac and Joseph Pose.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department.]

Bonds Voted.

St. Petersburg, Fla.—City voted issuance of \$67,500 of bonds for vitrified brick paving.

Bonds to Be Voted.

San Angelo, Tex.—City contemplates voting on issuance of bonds for \$20,000 to pave three blocks of streets.

Texarkana, Ark.—Miller county contemplates arranging to issue \$400,000 of road bonds.

Contracts Awarded.

Birmingham, Ala.—Jefferson County Board of Revenue awarded road construction contract at \$12,040.

Dallas, Tex.—City awarded contract for resurfacing portions of Elm street and McKinney avenue.

Florence, Ala.—City awarded contract for construction of crushed limestone roadways.

Gadsden, Ala.—City awarded contract at about \$10,000 to construct sidewalks in business section.

Huntsville, Ala.—City awarded contract for paving Meridian street with mineral rubber.

Louisville, Ky.—Board of Public Works awarded contract for paving 10 alleys with vitrified blocks.

Montgomery, Ala.—City awarded contracts for paving sidewalks on Decatur and Semmes streets and roadway on Coosa street.

Contracts to Be Awarded.

Bartow, Fla.—City will construct one mile of vitrified brick pavement and 5 miles of brick or cement sidewalks and gutters.

Birmingham, Ala.—City opened bids September 7 for certain grading, curbing, gutters, sidewalks and bituminous binder macadam paving.

Cedartown, Ga.—City will construct about 1900 square feet of cement sidewalks and 275 linear feet of 30-inch combination curb and gutter on grounds of Water and Light Department.

Dallas, Tex.—City opens bids September 9 for paving portions of Main, Market and Griffin streets.

DeWitt, Ark.—City awards contract September 14 for constructing 5-mile road.

Fort Pierce, Fla.—St. Lucie county is having plans prepared for proposed construction of 70 miles of hard-surfaced roads.

Hugo, Okla.—City opens bids September 20 for paving various streets.

Lexington, Ky.—Board of Public Works opened bids September 7 for constructing concrete sidewalks four feet wide, curbing and guttering on a portion of College View avenue.

Lexington, Ky.—City receives bids until September 12 for paving South Broadway with brick, asphalt or creosoted wooden blocks; 1890 square yards of paving; 395 cubic yards of concrete; 630 cubic yards of concrete; 1150 feet of limestone or granite curbing.

Little Rock, Ark.—City contemplates paving 15th street with brick or asphalt on concrete base, also grading, curbing and paving with vitrified brick on 11th street, 13th street, Park avenue and Schiller avenue.

Montgomery, Ala.—City opens bids September 19 for grading, curbing, constructing sewers, etc., on Day street; clay gravel paving, granite curb, sewers, gutters, etc., on Highland avenue; curbs, gutters, sewers, hexagon tile or Schillinger pave-

ment of sidewalks on Highland avenue, South Perry and South Court streets.

Norfolk, Va.—State Highway Commissioner, etc., opens bids September 19 for constructing three miles of macadam.

Rogersville, Tenn.—Hawkins County Road Commission will name date to receive bids on macadamizing road at a cost of about \$10,000; county engineer has completed preliminary survey for grading and macadamizing road 4½ miles long.

Wilmington, N. C.—City opens bids September 19 for grading Hanover street.

National Highway at Roanoke.

[Special Cor. Manufacturers Record.]
Roanoke, Va., September 3.

A new link in the national highway from New York to Atlanta was formally opened and dedicated on September 1 near Roanoke. Appropriate exercises, with speaking by President L. E. Johnson of the Norfolk & Western Railway, Congressman Henry D. Flood, State Highway Commissioner P. St. Julian Wilson and Vice-President Joseph A. Turner of Farmers' Institute of Virginia and chairman of the road-building committee. A thousand people from Roanoke and Botetourt counties were present. This new macadam public road was provided for largely by private subscription, supplemented by a small county fund and by State aid of a convict force of some 55 to 65 men. The work was started in May, 1909, having been promoted primarily by Messrs. James Frantz, W. P. Crumpacker and Joseph A. Turner. Construction was under supervision of a committee composed of Messrs. Joseph A. Turner (chairman) and Frank Read of Roanoke county, and L. H. Cocke, Harvey T. Hall and J. H. Marsteller of Roanoke city, while Mr. Crumpacker, as chairman of the Botetourt County Board of Supervisors, had charge of the Botetourt portion. The new road is a little more than five miles long between Roanoke and Cloverdale. A section of a mile and a quarter nearest Roanoke is built 22 feet wide, with macadam 16 feet wide, while the remainder is 20 feet wide, with macadam 12 feet wide. Funds have been provided for another macadam road out of Roanoke, which will be constructed by the convict force. Several other roads are to be macadamized. Roanoke city will build new connecting links from the city line to the center of the city.

San Antonio Roads.

[Special Cor. Manufacturers Record.]
San Antonio, Tex., September 2.

A concerted campaign of road-building is being organized in San Antonio and the San Antonio country. Public meetings are being held in the various county-seats and bond issues are being agitated. It is proposed to build a macadam road from San Antonio to Corpus Christi, on the Gulf. Another standard macadam road is projected from San Antonio to Kerrville, 75 miles into the mountains. The various counties have practically agreed upon a bond issue, and it is believed that these roads will be constructed during the coming year. San Antonio already has a network of roads extending in every direction from the city, aggregating 185 miles. Organizations of road overseers are being formed for the purpose of education in methods of road-building. These organizations hold monthly meetings, and the secretaries of the various commercial clubs are assisting them in securing the latest information from the United States Government and from other States in the matter of road-building. No public work is likely to prove more profitable than the construction of firm macadam roads. It is estimated that the loss from bad roads in the State of Texas is larger than the loss due to fire. The Texas Commercial Secre-

tries' Association has had a model road constructed, which shows the cross-sections how the building should be done. This exhibit, in conjunction with the State Agricultural Department, is being sent to the various county fairs for educational purposes.

Southern Appalachian Association.

The Southern Appalachian Good Roads Association will not meet at Knoxville on September 12, as announced last week, but on October 5-6.

Notes.

A Valdosta (Ga.) dispatch gives a rumor that leading Floridians are discussing a plan for an issue of \$10,000,000 of bonds for good roads in Florida.

A convention at Laurinburg, N. C., organized the Charlotte-Wilmington Highway Association to further the building of an improved roadway from Wilmington to Charlotte.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

To Consider \$500,000 Increase.

The F. W. Poe Manufacturing Co. of Greenville, S. C., will hold a meeting of directors on October 11 to consider increasing capital stock from \$500,000 to \$1,000,000. This company now has 61,312 ring spindles, 1520 looms, etc., and it is increasing facilities. It is building a two-story brick cotton-opening house, a three-story brick warehouse and a brick machine shop, besides adding about 10,000 spindles, etc., in present mill buildings. The machinery additions will increase the plant to about 70,000 spindles and 1650 looms.

The Ivanhoe Mill.

The Ivanhoe Manufacturing Co. of Smithfield, N. C., has about completed the construction of its building and will install 5120 spindles and accompanying equipment for manufacturing yarns. There will be sufficient space to double this equipment when the company finds its trade demands such action. This company's organization and plans were announced some months ago.

The Moore Mill Additions.

The Moore Cotton Mill Co. of Lenoir, N. C., has increased capital stock by \$30,000 and arranged for the installation of 2000 additional spindles. This equipment will increase the plant to 5376 spindles, with accompanying machinery.

Clifton Cotton Mills.

The Clifton Cotton Mills of Newport, Tenn., has been chartered with \$25,000 capital stock by B. W. Hooper, L. S. Smith, J. R. Stokely, A. J. Fisher and Y. J. McMahon. This company acquires an established plant of 2640 ring spindles, 544 twister spindles, etc.

Plans for Silk Industry.

A company will be organized with a capital stock of \$100,000 to cultivate silkworms and manufacture silk at Picayune, Miss. Kalil Joseph will be president; Elias Saik, vice-president; Wm. A. Stockstill, secretary; Charles Marcelle, treasurer.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

NEW MOBILE TERMINALS.

John T. Cochrane Proposes Extensive Development for His Railroads.

Dispatches from Mobile announce the incorporation of the Mobile Terminal & Railway Co. by John T. Cochrane, president of the Tombigbee Valley Railroad and the Alabama, Tennessee & Northern Railroad, and others, including F. J. Lisman of New York. The capital stock is \$500,000, nearly all of which is held by Mr. Cochrane. A site for terminals has been acquired on Mobile River near One-Mile Creek, where terminal tracks, piers and other facilities will be built. Steamboats may also be operated by the company. It is said that the Tombigbee Valley Railroad, which now connects with the Southern Railway at Calvert, Ala., will eventually be extended about 30 miles to Mobile.

An officer of the allied roads furnishes the following information concerning them.

The Tombigbee Valley Railroad is now operated from Nannahubba, a deep-water terminal on the Mobile River about 30 miles north of Mobile, to a point north of Silas, Ala., over 60 miles. Many good towns are building up along the line. The county-seat of Washington county has been moved from St. Stephens to Chatom, a new town on the railroad, where there has been constructed a handsome courthouse. The road is now building an extension northward about 12 miles.

The Alabama, Tennessee & Northern Railroad extends from Reform, Ala., on the Mobile & Ohio Railroad, southward through Carrollton, Aliceville, Cochrane, Dancy, Panola and Emelle, about 60 miles. An extension is being built to York, Ala., and which will be operated about January 1.

Both of these lines are well equipped with rolling stock; they have good depots, and their management is in the hands of Alabamians. When the extensions under way are completed the two lines will be only 20 or 30 miles apart. Furthermore, the northern terminus of the Alabama, Tennessee & Northern Railroad is within 20 miles of new coal fields and within 35 miles of coal which is being operated. Birmingham is only a few miles farther off. It is expected that an extension will be built to reach the coal lands and perhaps Birmingham, parties interested in the new terminal company having recently visited that region. The apparent idea is to place the roads in position to handle coal to the Gulf. There is some talk, but nothing definite, of an extension to Pensacola, Fla., or to connect with the McLaughlin Railroad, which is now extending from Pensacola toward Mobile.

EXTENSION TO BIRMINGHAM.

Chattanooga Southern's Reported Plans—Coosa River Development.

W. R. Phillips, secretary of the Business Men's Club, Gadsden, Ala., writes that President Newman Erb of the Chattanooga Southern Railroad and those who are associated with him in the deal for that property, which they recently acquired, announce that they will extend the line from Gadsden to Birmingham, Ala., about 60 miles. Mr. Phillips further says that representatives of the road are securing rights of way for an extension of about two miles or more to the Southern Iron & Steel Co.'s plant. The proposed extension to Birmingham would open up fine agricultural territory, besides mineral and timber lands rich in natural resources. Its construction would give a new route between Chattanooga and Birmingham, and might become part of a trunk line from the Gulf to the Great Lakes.

In connection with this contemplated railroad development it is interesting and important to note that the United States Government is opening up the Coosa River to navigation, and has already completed three locks below Gadsden toward the Gulf, and it is hoped that within five years, or when the Panama Canal is completed, that the stream will be entirely open to the Gulf of Mexico. Government engineers have made surveys to open the river to navigation all the way from Rome, Ga., to Mobile, Ala., with a nine-foot channel all the year round, starting at an elevation of about 900 feet and gradually dropping down to sea level.

Gulf & Magnolia Northern Survey.

President S. Q. Sevier of the Gulf & Magnolia Northern Railroad Co., Hope, Ark., confirms the report that the charter has been amended to build the line from Junction City, Ark., on the Rock Island lines, to Horatio, Ark., on the Kansas City Southern, 130 miles, instead of only from Hope to Magnolia, as was originally proposed. The route is via Magnolia, Bodcaw, Hope, Columbus and Mineral Springs. Other railroad connections will be with the Louisiana & Northwestern, the St. Louis Southwestern, the St. Louis, Iron Mountain & Southern, the Louisiana & Arkansas, the St. Louis & San Francisco and the Memphis, Dallas & Gulf.

W. W. Millwee, Sr., superintendent and general manager, and Henry Nunan, chief engineer, have arrived at Junction City with an engineering corps and have begun the location survey northwest toward Magnolia and Hope. There are 18 men in the party, with the necessary camp equipment. It is believed that contract for construction in Arkansas will be let, and that work will begin on or soon after October 1.

President Sevier further says that the line will be further extended to Haileyville, Okla., or some point near there, and in the other direction to Monroe, La. The company is also considering plans for a branch to Camden, Ark. By connecting with the Queen & Crescent Route at Monroe, La., and with the Louisiana & Northwestern at Magnolia two direct connections to New Orleans would be made, the latter one being over the Louisiana & Northwestern and the Louisiana Railway & Navigation Co.'s lines.

American Locomotive Report.

The annual report of the American Locomotive Co., covering the fiscal year ended June 30, 1910, shows gross earnings \$32,203,392, increase as compared with the preceding year \$13,194,758; manufacturing, maintenance and administrative expenses and depreciation \$29,605,443, increase \$11,939,480; net earnings \$2,597,949, increase \$1,255,277; profit after the payment of interest, etc., on bonds, notes, etc., \$2,084,758, increase \$1,097,619; surplus after the payment of dividends on the preferred stock at 7 per cent. \$334,758, increase \$1,097,619, there having been a deficit of \$762,860 last year.

The report notes that the revival in activity was confined to the six months ended June 30, 1910. It is also noted that, in common with other concerns, substantial increases have been made in wages. The automobile department has devoted considerable study to perfect the design of trucks for commercial use in order to meet the increasing demand for economical vehicles of that type. During the year the sum of \$482,708 was spent for additions and betterments. On July 1 of this year the company had unfilled orders on

its books amounting to \$17,550,000, as compared with \$6,150,000 a year ago.

The balance-sheet shows total assets of \$74,891,643, which includes the cost of property at \$51,741,791. The company has no bonded debt excepting that of constituent corporations. W. H. Marshall is president; Leigh Best, Herman F. Ball and Jas. McNaughton, vice-presidents; Chas. B. Denny, secretary and treasurer; J. O. Hobby, Jr., assistant secretary and assistant treasurer, and Jos. Davis, comptroller.

Denver & Gulf.

The Denver & Gulf Railroad Co., according to a press report, proposes to build a line from Denver, Col., to Port Arthur, Tex., about 1000 miles. It was recently reported that the Shumway Construction Co. of New York had been given contract to build 55 miles of line for the company from Lamar, Col., toward Texhoma, Okla., where the headquarters of the company are situated. The distance from Lamar to Texhoma is about 170 miles, and on February 17 last an officer wrote the MANUFACTURERS RECORD that it was intended to build 170 miles this year, presumably from Texhoma to Lamar, yet it was only recently that the award of contract was announced, although an officer reported early in January last that construction was resumed.

The incorporators of the company are Franklin A. Umsted, president; W. R. Evans, vice-president; H. C. Umsted, secretary and treasurer; James Hicks, chief engineer; J. L. Williams, R. R. Hargis, W. A. Turner, W. R. Russell, W. D. Furber, A. Young Ingham and J. W. Elliott.

With reference to the letting of contract it is said that \$5,000,000 of bonds have been floated, and that the contract represents an expenditure of \$1,000,000; also that right of way has been purchased and that the road will be part of one of the large systems. The distance from Denver to Dallas will be 692 miles. Maximum grade is to be 1 per cent., maximum curvature 3 degrees. The track is to be laid with 70-pound steel rails.

Poor's Manual for 1910.

Poor's Manual of Railroads for 1910 has been issued, this being the forty-third annual number of that standard reference work. It is about 25 per cent. larger than last year's issue, and is devoted solely to railroad information, the industrial data being now published in Poor's Manual of Industrials, which was issued last May. An important feature of this year's book is that it is printed in larger and more legible type.

The total mileage of steam railroads December 31 last was 238,356 miles, an increase of 6310 miles during the year. The gross earnings of all railroads for 1909 were \$2,513,212,763, an increase of \$106,192,953, or 4.41 per cent. Net earnings were \$852,153,280, an increase of \$134,351,113, or nearly 18½ per cent. Capital stock was \$8,030,680,963, increase \$388,767,877; funded debt \$9,118,103,813, increase \$329,585,768. The average revenue per ton per mile was .757 of a cent, as compared with .767 of a cent in the preceding year. The revenue per passenger per mile was 1.934 cents, as compared with 1.964 cents in 1908.

A new feature of the 1910 Manual is the large number of analytical tables, so constructed as to offer a test of the financial strength and the operating efficiency of every important system.

New Equipment, Rails, Etc.

The San Antonio & Aransas Pass Railway is reported in the market for four passenger cars.

The Chicago & Alton Railway, accord-

ing to a market report, has received bids to build 3000 cars, the purchase of which is contemplated.

E. H. Young of Galveston, Tex., according to a dispatch, has purchased from the German-American Car Co. of Chicago 10 tank cars of 8000 gallons capacity.

The Southern Railway has purchased 2000 drop-bottom steel coal cars from the Western Car & Foundry Co. of Hege- wisch, Ill., which will be delivered shortly.

The El Paso & Southwestern Railway, it is reported, contemplates purchasing four postal cars, three baggage cars, two mail cars and two chair cars.

The Terminal Railroad Association of St. Louis, according to a report from Birmingham, has ordered some concrete ties from the American Concrete & Steel Railroad Tie Co. of Birmingham, the ties to be used in the yards at St. Louis.

The Elizabeth City & Albemarle Railroad Co., D. G. Wilson, general manager, Edenton, N. C., proposes to build a new line from Elizabeth City to Lister's Pier, and wishes to purchase 900 tons of 50-pound relaying rails and fittings. It also desires two motor cars which can be operated with either kerosene or crude oil.

The North Carolina Traction Co. of Southern Pines, N. C., is asking bids to furnish rails and cross-ties for 100 miles of track. Relaying rails wanted for 20 miles. New rails to be 60 pounds per yard.

Belton to Greenville Interurban.

The Greenville Gas & Electric Light Co. and the Greenville Traction Co. have been purchased by the Southern Power Co. of Charlotte, N. C., according to dispatches from Greenville, S. C. The Greenville, Spartanburg & Anderson Railway Co. has increased its capital to \$3,000,000, and work, it is said, will begin immediately on the proposed interurban electric railway from Belton to Greenville, S. C. W. S. Lee is vice-president of the Southern Power Co., which will provide the current to operate the proposed electric railway, which is backed by J. B. and B. N. Duke of Durham, N. C. The Greenville Gas & Electric Light Co., it is further said, will be taken over by the Home Light & Power Co., recently organized, and of which J. Thomas Arnold is president.

Cumberland Railroad Grows.

An officer of the Cumberland Railroad Co., Warren, Ky., says that contract is let to S. P. Condon of Knoxville, Tenn., to build an extension of the main line from Warren southward to the Brush Mountain tunnel, 2.7 miles, and also for building the Tye Fork spur from this extension northwest, also for 2.7 miles. The engineering forces have been secured, and arrangements have been made to obtain all necessary material. The work is under the supervision of B. C. Milner, general manager and chief engineer.

Midland Valley's Extension.

The Midland Valley Railroad, which now has its northern terminus at Arkansas City, Kans., will, according to a dispatch, build an extension via Wichita to McPherson, Kans., having incorporated the Wichita, McPherson & Gulf Railroad Co. for the purpose. C. E. Ingersoll of Philadelphia and J. W. McLoud of Muskogee, Okla., are among the incorporators, they being, respectively, president and general solicitor of the Midland Valley, which has its beginning at Fort Smith, Ark., and traverses coal fields in Oklahoma.

Burlington's Southern Extension.

A dispatch from Paducah, Ky., says tracklaying on the Herrin Southern extension of the Burlington system has progressed as far as Tucker's Mill, 12 miles north of Metropolis, Ill., which is the Ohio

River terminal of the line. An officer is quoted as saying that the road will probably be operated into Metropolis by September 15.

It is also reported that the Illinois Central Railroad will build an incline at Paducah, so as to ferry trains across the Ohio by arrangement with the Burlington.

Rebuilding Pecos Bridge.

[Special Cor. Manufacturers Record.]
San Antonio, Tex., September 5.

Rebuilding its highest bridge (that over the Pecos River) without disturbing traffic is the undertaking which the Galveston, Harrisburg & San Antonio Railroad, a branch of the Southern Pacific between San Antonio and El Paso, has begun. This great bridge is 328 feet above water and 2080 feet long. At present the trains are supported by a temporary bridge of wood, which was built before a support of the old bridge was torn away. The new bridge will be a great viaduct resting on concrete piers built in the bottom of the canyon. The necessity of rebuilding the bridge arose from the purchase of big Mallet locomotives and the handling of heavier trains in the through traffic to and from the Pacific coast.

Traction Company to Build.

The North Carolina Traction Co., Danbury, N. C., according to information received by the MANUFACTURERS RECORD, will ask for bids on material, construction, bridges, concrete work and tracklaying for 100 miles of line to be completed within a year. Work will be let in sections. The company may also be addressed at Southern Pines, N. C.

To Join Gulf Coast Exporters.

Members of the Gulf Coast Lumber Exporters' Association and representatives of yellow pine manufacturers met at New Orleans last week for the purpose of discussing the feasibility of admitting the manufacturers to membership in the association. It is understood that the proposition was favorably acted upon, and at the next meeting of the Gulf Coast Manufacturers' Association at New Orleans on October 17 a reorganization will be effected. In addition to the grading and classification rules, it is stated that the association will maintain an inspection bureau.

The Catawba Fertilizer Co.

Articles of incorporation have been filed for the Catawba Fertilizer Co. of Lancaster, S. C., to be capitalized at \$80,000, for the purpose of erecting a fertilizer plant of 20,000 tons capacity. It is announced that John T. Stevens of Lancaster will be president of the new company, and that a site of 15 acres has been acquired for the establishment of the plant. Col. Leroy Springs and C. J. Shannon, Jr., of Camden, S. C., are also interested in the enterprise.

Pensacola's Export Shipments.

During the past year 821,948,000 superficial feet of lumber and timber were exported from Pensacola. As compared with its export trade the previous year, these figures show an increase of 24,000,000 feet of sawn timber and an increase of 61,798,000 feet of lumber.

The South Alabama Lumber Co. of Mobile has been incorporated with a capital stock of \$300,000 by H. H. Wheless, W. B. Patterson, W. H. Hearne and E. W. Wheless.

The Texas Commercial Secretaries' Association estimates that \$45,000,000 worth of automobiles are in use in that State.

Thirty persons from the vicinity of Claysville, Pa., are to settle at McIntosh, Fla., it is reported.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Memphis Lumber Market.

[Special Cor. Manufacturers Record.]
Memphis, Tenn., September 5.

The lumber market here is improving steadily, both as regards domestic and export business. Memphis lumbermen have much confidence in the fall market. Red gum stocks are low, which tends to make a strong market. Ash in the better grades is improving. Cypress lumber and cypress shingles are now having a very good market. Sap lumber, including the lower grades of cottonwood and gum, are weak. The furniture trade is buying heavily in the Memphis market at this time. Logging conditions are very good, and most of the mills in the Memphis territory are running full time. Retail lumber market here is above the average for September. Local furniture and vehicle stock factories are in full operation, and most of them behind on deliveries. The heavy rains of the last fortnight have helped the logging situation in Arkansas. The car works at Binghampton, a suburb of Memphis, have enlarged their capacity. They will now turn out some 15 cars in a day on their extra runs. The hardwood flooring market local manufacturers report as strong, with Western shipments notably good. The slack cooperage market continues about the same, with the hoop trade developing a shortage of stock. Tight cooperage is in stronger demand, the export improvement being responsible for an improvement in the domestic trade. Most of the mills that were closed down have resumed. The wooden-box business is picking up right along, and it is expected that there will be no emphasized dullness in the box trade again until after Christmas. The trade on oak and poplar lumber is very good, especially on the upper grades.

Building Active in August.

A review of Southern and Southwestern building operations for August indicates continued activity in all classes of construction, with a substantial increase in values as compared with previous months. In Augusta, Ga., permits were issued for buildings valued at \$37,241, as compared with \$21,137 for the corresponding month last year. Of the total, \$28,050 represents the cost of new buildings and \$9191 the cost of alterations and repairs. A total of 376 permits was issued in Atlanta, representing a cost of construction of \$424,637. As compared with August, 1909, these figures show an increase of 38 in the number of permits issued and \$12,362 in the cost of construction. In Charlotte, N. C., a total of 29 permits was issued for the month, representing a valuation of \$51,564. This amount shows a decrease as compared with previous months of the year. A total of \$106,375 is the estimated cost of construction in Wilmington, N. C., for which permits were issued during the month, while the total number of permits issued for the first eight months of the year reached 216, representing a cost of construction amounting to about \$700,000. In Jacksonville, Fla., a total of 95 permits was issued, having a valuation of \$165,440. Of this total, \$136,440 was expended for frame structures and \$29,100 for brick buildings. Permits were issued in Tampa to the number of 97, representing a cost of construction of \$45,862.64, of which \$41,082 was expended for new construction and the remainder for alterations and repairs. Operations in Birmingham for August represent an expenditure of \$305,055, as compared with \$165,364 for the corresponding month last year. For the first eight

months of the year the total expenditure is estimated at \$2,745,941, as compared with \$1,775,259 for the corresponding period last year. The total cost of construction for which permits were issued in Nashville during the month is estimated at \$407,634.50, as compared with \$203,320.59 for July, 1910, and \$136,263.25 for August, 1909. In Knoxville permits were issued to the value of \$37,915. Permits were issued in Chattanooga to an estimated value of \$85,058. During the fiscal year ended August 31 the total number of permits issued in Louisville was 2448, representing a cost of construction, exclusive of plumbing, electric wiring, etc., of \$3,996,792. The cost of construction for which permits were issued in Meridian, Miss., during the month amounted to \$23,570, which is a good record for that city as compared with previous months. Building statistics from New Orleans indicate satisfactory progress in construction, with an estimated expenditure of \$132,451 for August. For the fiscal year ended August 31 the total expenditure for building construction is estimated at \$5,214,252. A total of 839 permits was issued in St. Louis for August, representing a cost of construction amounting to \$2,952,959. Permits were issued in Dallas to the number of 119 for the month, with a valuation of about \$365,000, which is an increase of approximately \$8000 over August, 1909. During the first eight months of the year permits were issued in El Paso for improvements to cost \$1,350,273. A total of 291 permits was issued in San Antonio, with a value of \$208,851. The estimated cost of structures for which permits were issued in Kansas City, Mo., is \$506,500, an increase of about \$75,000 over August of last year. In Little Rock permits were issued for new construction, including 4336 feet of sidewalks, amounting to \$107,120, as compared with \$79,200 for August, 1909. For the first eight months of the year permits were issued to a value of 1,069,472. It is estimated that the cost of construction for which permits were issued in Tulsa, Okla., will amount to \$122,025. A total of 104 permits was issued in Richmond during August, representing an expenditure of \$261,135 for new construction and \$28,490 for alterations and repairs. The Chamber of Commerce of Lynchburg, Va., has compiled statistics which show that building operations completed during the year and pending, including municipal improvements, aggregate \$1,250,192. This includes new residences completed since the first of the year, costing \$314,000. In Norfolk a total of 56 permits was issued in August, having a valuation of \$195,458.75. As compared with other months of the year, these figures show a material increase. During August a total of 486 permit was issued in the District of Columbia, providing for an estimated expenditure of \$1,275,721. As compared with July, these figures show an increase of 62 in the number of permits and about \$500,000 in the cost of construction.

Purchases 4000 Acres Timber Land.

In connection with its purchase of timber lands in Eastern Louisiana, the Desha Lumber Co. of Arkansas City, Ark., advises the MANUFACTURERS RECORD that the lands recently purchased consist of 4000 acres of virgin timber estimated to cut from 30,000,000 to 40,000,000 feet. The company will construct a railroad from the tracks of the Iron Mountain Railroad into the property and transport the timber to its Arkansas City plant for manufacturing. It will construct four or five miles of track, using its own engine, and will operate a skidder. In its plant at Arkansas City the company has recently installed a 14-inch Clark Bros. band mill, with necessary shotgun feed, bumpers and

carriage, and is at present installing a Clark Bros. rope power set works. It will produce about 40,000 feet of lumber per day. In addition to this purchase, the company controls 7000 acres of timber land near Arkansas City, where it is operating a standard-gauge railroad 10 miles in length. The Hyde Lumber Co. of South Bend, Ind., is the principal stockholder in the Desha Lumber Co., and controls its output.

MINING

To Mine Coal and Manufacture Coke.

James Harrington of Texarkana, Tex., recently reported as purchasing 3500 acres of coal land near Carbonale, Tex., has a fully-equipped mining plant, with engines, boilers, hoisting engine, cars, scales, tippie, etc., and is developing a mine to a capacity of 1000 tons of coal per day. Mr. Harrington desires information as to coke ovens. He has not as yet constructed any, and has not fully determined which type will be more suitable for his requirements, considering cost, etc. He states that he has an abundance of clay at the mine, and contemplates manufacturing the brick on the ground, but desires information regarding ovens, with details as to construction, operation, etc.

Norfolk & Western Shipments.

It is announced that coal shipments over the Norfolk & Western Railroad during August broke all previous records for one month. A total of 1,544,237 tons of coal was hauled and 171,330 tons of coke, these figures showing an increase over July of 200,000 tons. Shipments were handled from the following fields: Pocahontas, 1,016,050 tons; Tug River, 166,200 tons; Thacker, 198,650 tons; Kenova, 71,387 tons, and Clinch Valley, 91,950 tons.

Coal Shipments from Hampton Roads.

It is estimated that coal shipments from Hampton Roads during August amounted to approximately 1,000,000 tons. Of this total, the Virginian Railway handled 116,870 tons, while the Chesapeake & Ohio and the Norfolk & Western each handled more than 400,000 tons.

Will Produce 15,000,000 Tons.

According to a statement accredited to Chief State Mine Inspector James Hillhouse, the coal production in Alabama for the present year will probably reach 15,000,000 tons.

Mining Notes.

It is announced that the Stonega (Va.) Coal & Coke Co. (main office Philadelphia) has received a contract to supply 250,000 tons of coal per year to cotton mills in South Carolina.

The Success Mining & Development Co. of Grafton, W. Va., has incorporated with a capital stock of \$260,000. Its incorporators include John S. Crogle, William C. Radcliff, William F. Merrill and associates.

For the seven months ended July 31 the tonnage of the Consolidation Coal Co., Continental Building, Baltimore, shows an increase of about 2,000,000 tons of coal as compared with the corresponding period last year.

The Aracoma Coal Co. of Logan, W. Va., has incorporated with a capital stock of \$100,000, its incorporators including E. B. Hubbard of Logan, C. Wilbur Stump and W. T. Green, both of Charleston, W. Va., and associates.

FOREIGN NEEDS

Machinery for Dry Color Plant.

Berenger & Co., 12 Rue Senac, Marseilles, France, write the MANUFACTURERS RECORD:

"We shall construct a large shop for the manufacture and exportation of dry colors (colors in powder). The power will be electricity, operating automatically. We shall need machinery for thoroughly mixing powders, such as plaster, carbonate of lime, baryta, etc., with dry colors, such as ochre, ultramarine, oxide of iron, etc. During the process of mixing it will be necessary to pulverize materials so that they will pass through sieves of 4900 meshes. The machines must fill and empty themselves automatically. The various materials placed in the grinder (plaster, carbonate of lime (Spanish white), colors, glue, etc.) must form a perfect whole by means of some special apparatus with which we are not acquainted at present, operating and producing continually. We want carriers, lifts, conveyors and automatic scales for weighing the materials destined for the mixing machines, oscillators, sieves, etc. Also machines for putting the manufactured powders (colors) in packages of 500 grammes, and these packages in boxes. Machines for making the boxes, nailing them up and marking them. We want aspirators (pneumatic exhaust), fixed and movable, for removing dust and keeping the machines clean. We also want heating machines for cleaning the empty sacks, etc. Among the crude materials which we shall purchase we shall be able to get from America little save the dry colors. We shall need very concentrated coloring materials which will color 70 to 80 per cent. of white very hard, capable of resisting the action of light alkali, cement and acids. We cannot use colors with aniline base. The price is of small importance to us, provided the articles will give us the results we want in just proportion. We carefully examine all catalogues and samples which specially relate to our line of work or to manufacturers in general, and are quick to take up anything that shows progress. To avoid delay we recommend possible sellers to write us in French. Catalogues can be in English, Spanish, Italian or French. We could handle white Portland cement for the construction of facades, if of extra good quality. In France they make these of heavy lime, and they have little resistance (are not lasting)."

Machinery for River Improvements.

Welman Bradford, Itapetininga, Estado de S. Paulo, Brazil, S. A., writes the MANUFACTURERS RECORD:

"Kindly place us in touch with the proper parties who make large dredges for river work. I will soon have under my direction the rectification and straightening of the bed of a river which has a width of some 280 feet, depth below water about 3 to 10 and width between alluvial banks of some 280 feet. The machines I think I would require would be a suction dredge with large power to discharge mud, sand and earth into the machines on either side. The alluvial banks stand nearly perpendicular about 20 feet above the waters. These machines must have large capacity and must discharge the material excavated through tubes or pipes on either side to fill in the stretches of marsh. Kindly have parties state full capacity per hour, cost of machine f. o. b. New York, with timber hull all knocked down and ready to be put together here. One or two small machines for ditching purposes, same as above. Have parties write as fully as possible all information."

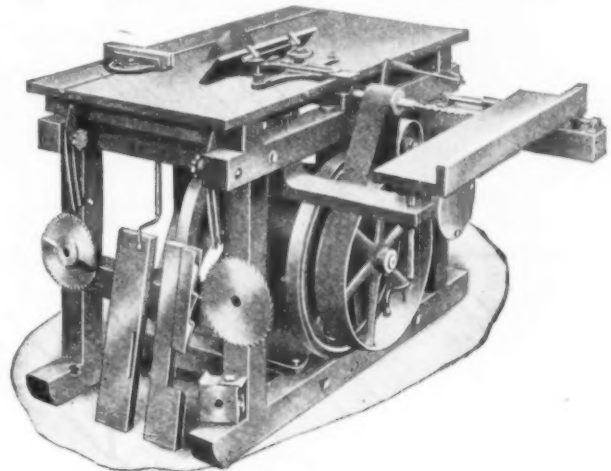
MECHANICAL

Portable Saw Bench.

An accompanying illustration represents the American "Contractors" Portable saw bench and variety woodworker.

This machine is particularly adapted to the use of general contractors, concrete workers, contractors and builders, and engineers. It is portable, compact, self-contained and very substantially built throughout, so as to stand the hardest kind of service. It is intended to be taken right to the job, where it will do in a most satisfactory manner a large variety of light and medium mill work.

It consists of a combined rip and cut-



PORTABLE SAW BENCH.

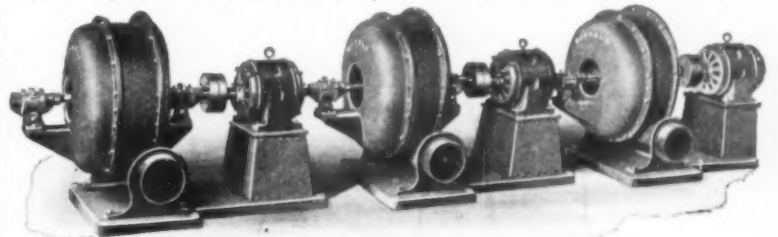
off saw bench, with boring attachment, jointer and dado heads, with a gasoline engine of ample power mounted on the frame directly under the table and belted direct to the mandrel. A suitable belt tightener is provided with adjustable spring take-up, so as to insure the proper tension on the belt.

The frame and top are made of seasoned wood accurately framed and securely bolted together, insuring rigidity and durability, and is handsomely finished in natural color.

The top is strongly hinged to the rear of the frame, and is readily raised and lowered by the hand screw and firmly held in any position by the clamps on each side.

The mandrel is steel, 1 3-16 inches, with self-oiling babbitted boxes strongly yoked together, thus securing rigidity and permanent alignment. The end has a one-half-inch hole to receive the bit shank, and a hollow safety set screw to hold it securely.

The boring table has steel slide, a travel



SMALL TURBINE BLOWERS FOR BLAST.

of six inches in line with the spindle and a vertical adjustment of three and one-half inches.

Adjustable ripping and cut-off gauges are furnished. The ripping gauge is provided with a tilting fence for bevel sawing, and has rapid, fine adjustment, and may be secured at any point.

The cut-off gauge slides in an accurately-planed iron groove entire length of the table, and can be set to cut square or any angle to 45 degrees.

The engine is of the hopper cooled type, strong, durable, simple and reliable. It starts easily, runs smoothly and steadily; has an ingenious speed regulator and car-

ries sufficient gasoline to run eight hours steadily.

The regular equipment consists of engine with batteries, spark coil and connections, driving belt, rip and cut-off gauges, one 12-inch rip saw, one 12-inch cut-off saw, one one-half-inch and one seven-eighths-inch dado head, one jointer head with four two-inch knives, and one each one-half-inch and one-inch auger bits; one cast-iron jointer table with adjustable section for rabbitting, one throat piece for dado head, one throat piece for saws, oil can and wrenches.

The machine is equipped with electric motor to suit any current or voltage when desired.

This machine is manufactured by the

American Sawmill Machinery Co., 83 Fulton street, New York.

Small Turbine Blowers.

During recent years there has been a general tendency to reduce the number of belted machines in every machine shop and manufacturing plant, as well as foundries. For cupola blast a large amount of air is required at from 8 to 16 ounces pressure per square inch, and it is impossible in most cases to direct connect centrifugal blowers to motors on account of the speeds required being much higher than could be obtained with the motors.

The Buffalo Forge Co., Buffalo, N. Y., manufacturer and designer of fans and blowers, has placed on the market a turbine blower having two or more stages, which allows the speed to be reduced to that corresponding to one-half or one-third of the total pressure, according to whether it has two or three stages. Small capaci-

ties at high pressure are easily obtained at moderate speeds. At the present time turbine blowers as illustrated herewith have been installed by many of the larger foundries, several plants of the steel corporation, and in railroad shops. The illustration represents a number of small turbine blowers for supplying blast to furnaces in railroad repair shops which handle 1000 cubic feet of air per minute at five ounces pressure and operate at a speed of approximately 1720 revolutions per minute.

As a comparison with a standard centrifugal single-stage blower, it may be added that the speed corresponding with

the single-stage blower at the same pressure and approximately the same capacity is 2880 revolutions per minute.

Turbine blowers having capacities as high as 12,000 cubic feet of air per minute at pressures from 5 to 24 ounces per square inch are built by the Buffalo Forge Co.

A New Corrugated-Iron Roof.

The Edwards Manufacturing Co. of Cincinnati, O., manufacturer of sheet metal building materials of various kinds, has perfected and is marketing a new corrugated sheet-steel roofing, which is claimed to be entirely different from anything ever offered in this line heretofore.

There is, perhaps, no more popular roof-

The great majority of buildings on which corrugated steel is used are constructed throughout of structural steel, to which the corrugated steel is applied afterwards, either as a siding or roofing. Edwards patent pressed standing seam corrugated roofing is especially adapted for use on buildings of this character, as will be seen by the accompanying drawings. This roof has the advantage of having perfectly tight seams, and can be applied directly to the purlins without the use of rivets of any kind. It is a well-known fact that all forms of iron and steel roofings deteriorate first at the points where the sheets are punctured by rivets. This is easily understood, as these points must stand all the

alone, and in addition to this a much tighter side lock is assured.

Another advantage of this roofing which will be appreciated, especially where roofs are high and difficult to scaffold, is that it can be placed on the roof and worked entirely from above, no scaffolding of any kind being necessary.

Fig. 1 shows the roof as applied on iron purlins without rivets. The methods of applying the cleat will be especially noticed.

Fig. 2 shows the position of the cleat after the roof is completed.

Fig. 4 shows a section through the cleat at the point A-A indicated in Fig. 3.

In summing up the advantages of this

thus holding the sheets more firmly in position.

It can be applied more quickly and with greater ease than, it is said, other forms of corrugated roofing, no scaffolding being necessary, and since there is no riveting, it is not necessary to have a man hold up the under side of the sheet while the riveting is being done.

While this roofing is primarily adapted for use on buildings having steel purlins, it can be applied on wood purlins or sheathing board quite as well, the cleat in this case being nailed to the wood purlin or sheathing in such a manner as to entirely conceal them after the roof is complete.

The cost of the material is somewhat more than the cost of ordinary corrugated sheets, but the saving in side laps and in application is claimed to more than make up the difference. This roof has been applied to a number of large buildings in various parts of the country, and has given great satisfaction. One of these roofs, covering a single building requiring over 1000 squares, was put on three years ago, and it has done excellent service.

All essential features of this roof are protected by patents in this and foreign countries, and the manufacturer will be glad to go into details on application, furnishing samples, give estimates, etc.

In addition to iron and steel roofings, this company manufactures a complete line of sheet metal building material, such as cornices, skylights, metal ceilings, etc.

Dodge "Standard" Iron Split Pulley.

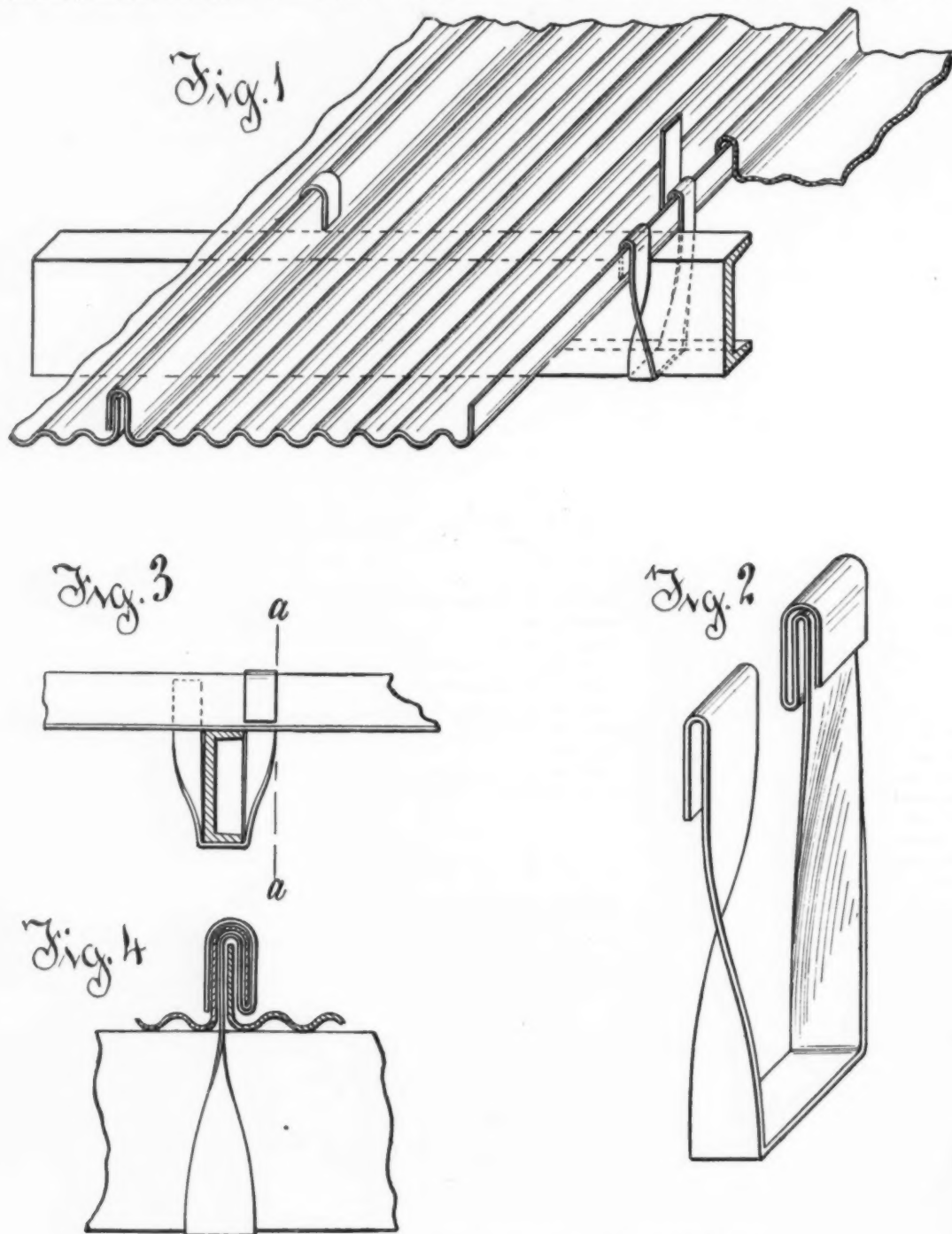
Equipment is efficient which does its special work most excellently and economically for the longest time.

And pulleys, in addition to that, are offered so constructed that they can be moved from one place to another and used on different sizes of shafting.

These qualities are claimed for the Dodge "Standard" split iron pulleys.

The rim is cast whole, then split by fracture at the parting line. When the pulley is mounted on the shaft and the fractured edges of the rim are matched and bolted they fit together so tightly that it becomes practically a solid-rim pulley. Dodge pulleys are made by the Dodge Manufacturing Co. of Mishawaka, Ind., which company says:

"Dodge pulleys are made of cast iron. So, being non-flexible, they stay exactly



EDWARDS PATENT PRESSED STANDING-SEAM CORRUGATED ROOFING.

ing than corrugated steel, as it is in universal use, but it has a number of disadvantages which have been the aim of all manufacturers of roofing to overcome for many years. The Edwards patent pressed standing seam corrugated roofing is said to do away with many objectionable features of ordinary corrugated-steel roofing, and is a roofing which will probably appeal to builders who desire to use a corrugated roofing, but who are not satisfied with the methods of applying it or the results obtained from regular corrugated steel as a roof.

strain of vibration, wind pressure, etc. The deterioration is especially noticeable in cases where galvanized steel is used, for at all points where the sheets are punctured for the purpose of riveting the raw metal is exposed, breaking the coating at this point and permitting the oxidizing of the sheets, which is increased very rapidly by the vibration as mentioned.

In order to get the best results with corrugated iron it is necessary to lap the sheets two corrugations, but by using this new roofing it is claimed a saving of 11 per cent. can be effected on the side seams

roofing it is apparent that its greatest advantage is in the method of application, principally the fact that it can be applied without the use of rivets of any kind. It is impossible to puncture a roofing sheet, even for the purpose of riveting, without destroying the value of the sheet to an appreciable degree. An entire roof can be put on of this material without puncturing the sheets, which is especially valuable where galvanized iron is used, for the coating is left intact over the entire surface and all edges.

It can be applied closely to the purlins,

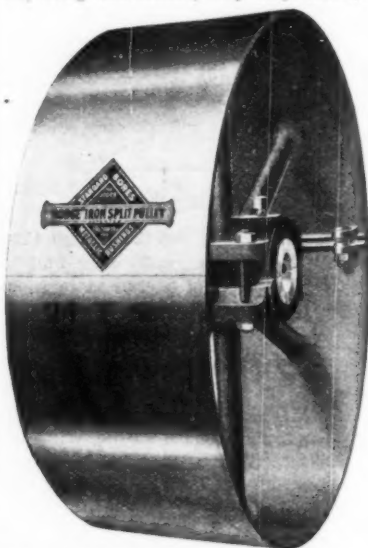


FIG. 1.—DODGE "STANDARD" PULLEY.

round, true and in balance, just as they left our machine shops. They don't pull out of shape when put under a belt and have no riveted joints to work loose or shear.

"Many of the best factories in the country are equipped throughout with these pulleys. No other pulleys would be con-

sidered for use in those factories. Here are the advantages which those factories have secured in using Dodge "standard" split pulleys:

"Their pulleys can be erected or taken down with a few minutes' work. And yet when once on the shaft they are there to

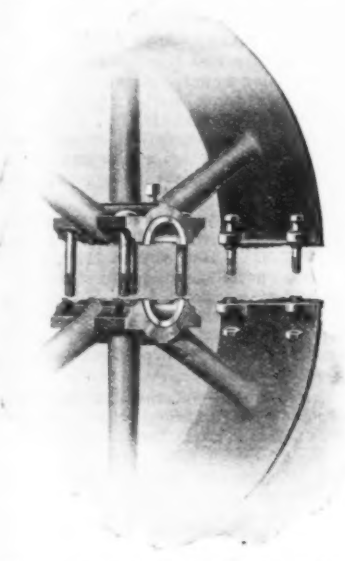


FIG. 2.—DODGE "STANDARD" PULLEY.

stay—held by compression reinforced by two set screws.

"Each pulley has a wide range of usefulness. By means of the interchangeable bushings it can be fitted to all different sizes of shafting within a reasonable range. Thus the pulley adapts itself to changes

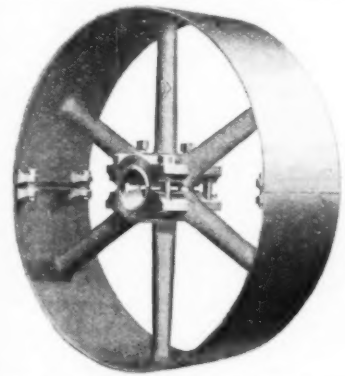


FIG. 3.—DODGE HUB AND BUSHINGS.

in plant equipment, and never becomes a 'scrap-pile candidate.'

"Dodge 'Standard' split iron pulleys are carried in stock by agents everywhere, from 6 inches to 54 inches, and all regular face widths, with interchangeable bushings to fit all shaft sizes."

Note the four accompanying views of



FIG. 4.—SPLIT AND UNSPLIT BUSHINGS.

the Dodge pulley. Fig. 1 represents the complete pulley; Fig. 2 shows how the rim edges are fractured, then drawn together by bolts through rim lugs, thus making practically a solid-rim pulley; Fig. 3 shows the construction of the hub and how the bushings fit into it; Fig. 4 shows the bushings, which are cast solid and split by cracking.

McNally Pneumatic Cotton Gin.

The MANUFACTURERS RECORD has previously referred to the incorporation of the McNally Pneumatic Gin Corporation, T. H. Synon, president, Norfolk, Va. J.

J. McNally sends the following statement regarding the machine:

"This machine, which has been in course of development the past three years, shows all evidences of a successful gin. One of the machines has been in operation at Columbia, S. C., and many of those interested have witnessed its operation and have written strong letters of endorsement as to its workings and results.

"The seed cotton, after being thoroughly cleaned, is blown to two small nickel steel rolls, which, in combination with a strong pressure of air, effectually pulls the entire length of cotton from the seed, the principle being similar to the 'finger-and-thumb process,' as was in use previous to the invention of the Eli Whitney saw gin.

"Its capacity is equal to the 80-saw gin, and using about half the horse-power of that machine.

"The machine is 'foolproof,' and the operator can stick his hand up to the throat, where the seed is separated from the cotton, and without entailing a loss of limb, as would happen if this was done to the saw or roller-knife gin.

"Machines are being built at a factory in the vicinity of Boston, and will be installed in a number of ginneries in the South in time for the coming season.

"A two-million-dollar company has been organized under the laws of Virginia, and the company will decide next January where they will erect a factory for the construction of these machines.

"J. J. McNally is the inventor of this machine, and has been for the past 20 years in the cottonseed-oil and ginning industries in Virginia and Arkansas."

Development of Metal Ceilings.

In view of the widespread and rapidly-growing use of metal ceilings, an article entitled "The Origin and Development of Metal Ceilings" is interesting. This treatise is being distributed by the Berger Manufacturing Co., Canton, O., and among other points it advances the statement that the merit of metal ceilings is not confined to their fireproofing qualities, as ceilings of modern metal manufacture are artistically beautiful, as well as durable, light and easily applied. Records show that as long ago as 1840 metal ceilings were employed by the Germans in the construction of large buildings and factory rooms. Just how long these first ceilings endured is not positively known, but as they were not exposed to the elements it is thought they outlived the buildings in which they were used. Up to the year 1895 the metal ceiling industry in America remained practically undeveloped, only a few manufacturers offering the product. Metal ceilings were then so lacking in artistic effect that it is said architects would only consider them for structures which necessitated absolute fireproof construction. It is claimed that the Berger Manufacturing Co. was among the first to adopt a policy and develop a plan of manufacture which has eliminated all former objections. Beautiful dome and beamed effects are now possible, as ceilings are made in forms as well as sheets, both being shaped for easy application and perfect matching. Eleven basic classic designs have been adopted, embracing Greek, Roman, Romanesque, Gothic, French, Italian and German Renaissance, Rocco, Moorish, Empire and Colonial Art. From these designs, which include heavy cornice and border forms, center plates, etc., hundreds of combinations are offered. Heretofore the adaptability of metal ceilings has largely been confined to ceilings only, but it is difficult to foresee the limit of their use, as they are now being introduced by the Berger company for wall coverings and other purposes.

Forge Blowers and Air-Jet Blasts.

By OSKAR NAGEL.

In factories where compressed air is available, the latter can be used conveniently for supplying combustion air to stationary and portable forges, as also for

ping device can be operated by one hand. As a rule, the apparatus is connected to the stationary compressed air line by means of a hose. It is easily disconnected in order to be used wherever it is wanted. These blasts work very economically. They are used for evenly moistening the

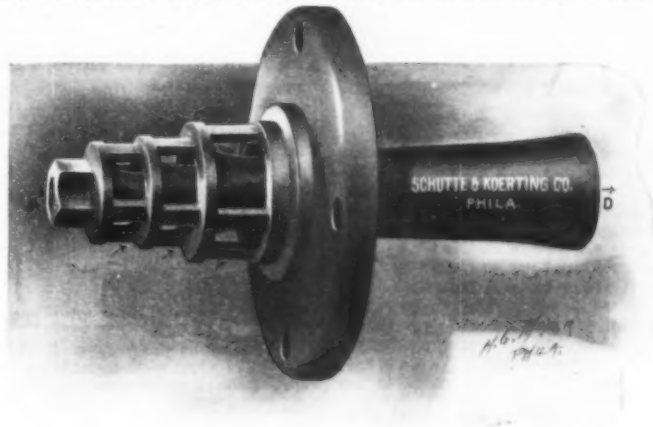


FIG. 1.—FORGE BLOWERS AND AIR-JET BLASTS.

cleaning castings and blowing out the molds by means of air-jet blasts. (See three accompanying illustrations.)

Fig. 1 shows a compressed air blower; A is the air inlet; D is the discharge. A rigid connection of this blower to the forge is illustrated in Fig. 2. A is the hose,

connecting device can be operated by one hand. As a rule, the apparatus is connected to the stationary compressed air line by means of a hose. It is easily disconnected in order to be used wherever it is wanted. These blasts work very economically. They are used for evenly moistening the

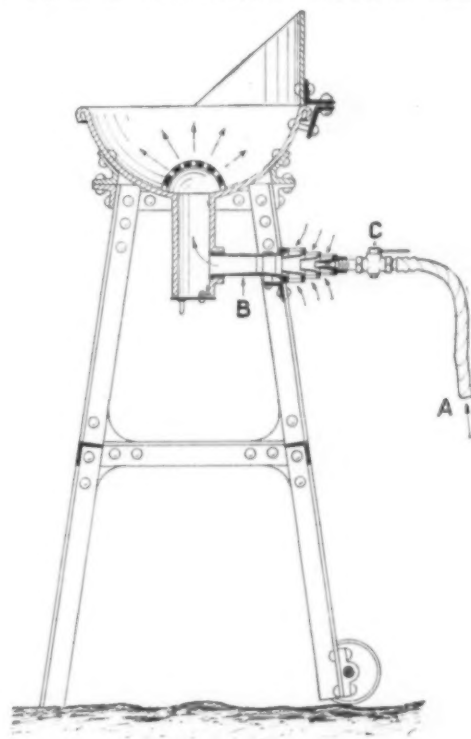


FIG. 2.—FORGE BLOWERS AND AIR-JET BLASTS.

which carries the compressed air to the blower, B is the blower and C a cock. The operation is based upon the force of a small jet of compressed air, which draws a large volume of air from the atmosphere and forces it under the grate. The quantity of compressed air to be admitted is

rubber hose connected near the handle of the apparatus. The atmospheric air is drawn in through the openings H of nozzle G. A spring valve provided on the handle is operated by pressing the push button E. If the apparatus is used exclusively for drawing in the atmospheric air, then the



FIG. 3.—FORGE BLOWERS AND AIR-JET BLASTS.

regulated by a cock. The standard blower consumes 2.3 cubic feet of compressed air per minute, expressed in atmospheric pressure.

Fig. 3 illustrates the air-jet blast for cleaning castings. This apparatus is easily handled, and the starting and stop-

hose is taken out of the tank containing the liquid.

It is reported that a cotton mill of New York State contemplates buying 5000 acres of land in the South upon which to raise its own supply of cotton.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS RECORD.

ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

The Daily Bulletin of the Manufacturers Record is published every business day in the year for the purpose of giving the earliest possible news in regard to new industrial, railroad and financial enterprises organized in the South. It is invaluable to contractors, manufacturers, engineers and all others who want to get in touch at the earliest moment with new undertakings or the enlargement of established enterprises. The subscription price is \$25 a year. All advertising contracts in the Manufacturers Record extending over a period of three months include a subscription for the length of time of the contract to the Daily Bulletin.

BRIDGES, CULVERTS, VIADUCTS

Ark., De Witt.—Arkansas county will construct seven bridges, ranging from 28 to 100 feet; contract will be let September 14; L. C. Smith, County Judge.

La., Alexandria.—W. P. Hudson has contract at about \$10,000 for construction of false work in Red River for protection of Alexandria and Pineville traffic bridge.

La., New Orleans.—City Comptroller will probably invite bids within next 20 days for repairs to Hagan Ave. swing bridge; plate girders to be substituted for steel trusses; center pier, abutment walls, etc., to be altered and repaired; plans and specifications (recently noted to be prepared by W. J. Hardee, City Engineer) will be furnished to prospective bidders after advertisement appears.

Md., Baltimore.—Board of Awards awarded contract to D. V. Ault & Co., 65 Knickerbocker Bldg., Baltimore, at \$87,810.08 to construct steel and concrete bridge across Jones' Falls at Pratt St. (Recently mentioned.)

N. C., Wilmington.—City will build approaches to 6th St. bridge across Atlantic Coast Line tracks; bids will be opened September 9; Louis S. Belden, chairman Street Commission.

Tex., Dallas.—City will receive bids until October 1 for construction of Dallas Oak Cliff viaduct; work will include about 43,500 cubic yards of reinforced concrete, steel span

100-feet long, 40,000 linear feet of concrete piling, 8000 linear feet of timber piling, etc.; John L. Young, County Judge. (Previously mentioned.) (See "Machinery Wanted.")

CANNING AND PACKING PLANTS

Fla., Tampa.—Citrus Growers' Association is having plans prepared by Bonfoey & Elliott, Tampa, for packing-house; cost \$7000.

La., Jewella.—North Louisiana Canning Factory purchased machinery to double capacity of cooking department.

Tex., Chaplin.—J. E. Boren, 404 Moore Bldg., San Antonio, Tex., will establish preserving factory; will also cultivate figs and truck. (See "Machinery Wanted.")

CLAYWORKING PLANTS

Fla., Pensacola.—Clay Cups.—A. H. Baker & Co. will operate plant to manufacture clay cups; daily capacity 20,000 clay turpentine cups. (See "Machinery Wanted.")

La., Whitecastle.—Bricks.—Whitecastle Brick Co., Ltd., incorporated with \$5000 capital stock; Leonce M. Soniat, president; Paul I. Viallon, Jr., secretary-treasurer; Paul U. Babin, vice president; will establish brick plant.

Okl., Oklahoma City.—Brick.—Nicholson Brick & Tile Co. will erect brick plant with capacity of 100,000 bricks daily.

COAL MINES AND COKE OVENS

Ala., Brookwood.—Alabama Consolidated Coal & Iron Co., main office at Birmingham, Ala., will erect coal storage bin costing \$9000; has placed building materials at site.

Ala., Oakman.—Oakman Mining Co. (recently reported incorporated) will develop 80 acres; new mine; Geo. B. Hooper, president and manager; J. de B. Hooper, secretary; Hooper Collier, construction engineer.

Ky., Louisville.—Consolidated Coal, Coke & Timber Co. incorporated with \$50,000 capital stock by James A. Shuttleworth, Joseph M. Matthews and William G. Dearing.

Okl., Oklahoma City.—Halley-Pascoe Coal Co., W. N. Pascoe, president, main office, McAlester, Okla., will proceed with development of (approximately) 200 acres. (Recently noted incorporated.)

Tex., Carbondale.—James Harrington, Texarkana, Ark.-Tex., has installed machinery for development of 3500 acres coal land recently noted purchased; daily output (if full capacity), 1000 tons; coke-oven plans not decided; main office, Texarkana, Tex. (See "Machinery Wanted.")

Tex., Rockdale.—Rockdale Consolidated Coal Co. incorporated with \$100,000 capital stock by W. M. Wells, H. E. Rowlett and I. P. Sessions.

W. Va., Eckman.—Majestic Collieries Co., W. A. Phillips, president, Majestic, Ky. (main office, Shamokin, Pa.), awarded contracts for steel tipples recently noted; Meems & Haskins, Bluefield, W. Va., construction engineers.

W. Va., Logan.—Aracoma Coal Co. incorporated with \$100,000 capital stock by E. B. Hubbard of Logan, C. Wilbur Stump and W. T. Green, both of Charleston, W. Va., and others.

COTTON COMPRESSES AND GINS

La., Ruston.—G. M. Lomax Lumber Co. will establish cotton gin.

Miss., Beaumont.—Beaumont Gin Co. incorporated with \$3000 capital stock by Jeff Griffiths, O. B. Overstreet, J. H. Lyman and others.

S. C., Latta.—Latta Gin & Manufacturing Co. incorporated with \$12,000 capital stock; P. Rand, president; L. F. Jackson, secretary-treasurer.

Tenn., Dyersburg.—Farmers Cotton Oil Co., L. M. Williams, president, will establish cotton gin and oil mill. (See "Cottonseed-oil Mills.")

Tex., Archer City.—Farmers' Union Gin Co. incorporated with \$9000 capital stock by J. W. Seals, G. N. Spanks and J. S. McLugin.

Tex., San Marcos.—Farmers' Union Gin Co. will rebuild cotton gin reported burned; loss \$12,000.

COTTONSEED-OIL MILLS

Miss., Natchez.—Natchez Oil Mills purchased and will install machinery for refining cottonseed oil.

S. C., Jefferson.—Jefferson Cotton Oil Co. (recently reported incorporated with \$15,000 capital stock) will receive bids for erection of brick mill building and metal-clad seed-houses; daily capacity, 30 tons cottonseed; Dr. George W. Gregory, president; J. W. Miller, vice-president; W. W. Miller, secretary-treasurer. Address the president.

Tenn., Dyersburg.—Farmers' Cotton Oil Co. organized with L. M. Williams president, W. H. Reed vice-president, R. T. Ray secretary-general manager; will establish cottonseed-oil mill; daily capacity 25 tons; five presses; will also establish cotton gin.

Tex., Cuero.—Cuero Cotton Oil Manufacturing Co. will install additional equipment for refining oil.

Tex., Mart.—Mart Cotton Oil Co., Chas. Moroney, manager, will open bids September 10 for erection (labor only) of cotton-oil mill recently noted burned; 4x100 feet; mill construction; L. Bellamy, Mart, Tex., engineer in charge of construction; will install machinery; daily capacity, 80 tons cottonseed. (See "Machinery Wanted.")

DRAINAGE AND IRRIGATION

Ark., Helena.—Beaver Bayou Drainage District, Lee Pendergrass, president, will soon award contract for construction of canals for proposed reclamation of 50,000 acres in Phillips county; will construct two trunk canals, one about 20 miles long and other about 16 miles; Winters & Dove, Fort Smith, Ark., are engineers in charge.

La., Gueydan.—Simms & Means, San Francisco, Cal., have, it is reported, purchased 300,000 acres of marsh land in Cameron parish and propose to reclaim property and divide into fruit farms of 40 acres.

La., Crowley.—City voted tax for construction of drainage system; will issue \$75,000 of bonds. Address The Mayor.

Tex., Brownsville.—Cameron County Commissioners have accepted report submitted by County Surveyor A. W. Amthor, who is in charge of engineering department, for construction of system of drainage canals for irrigation of 81,136 acres in Drainage District No. 1; principal specifications as presented in report are: Total length of ditch No. 1 65,000 feet, 3 to 20 feet wide at bottom, 370,000 cubic yards excavation, estimated cost \$55,545; ditch No. 2, total length 80,000 feet, 3 to 30 feet wide at bottom, excavation 302,470 cubic yards, cost \$54,370.50; ditch No. 3, length 34,000 feet, 3 to 8 feet wide at bottom, excavation 64,124 cubic yards, cost \$9618.60; outlet ditch, length 45,000 feet, width 50 feet, excavation 265,650 cubic yards, cost \$47,709; outlet ditch will extend midway between two levees, 150 feet apart; total yardage to be moved, 1,061,944 cubic yards; total length of ditches, 42½ miles; average depth 7 feet and maximum cut 18 feet; work will also include construction of 49 wagon bridges and four railroad bridges, estimated to cost \$15,930; total cost estimated at \$204,690. (Recently mentioned.)

Tex., Cotulla.—D. A. Walker, Mark Nickerson, J. H. Lieber and others are organizing company to construct 20-foot dam in connection with irrigation system.

Tex., Cotulla.—Holland-Texas Dam & Irrigation Co., T. N. Pienot, president, awarded contract to Reeder & Co., San Antonio, Tex., at \$17,950 to construct concrete dam 21 feet high and 347 feet long across Nueces River; has also contracted for 175-horse-power steam engine and boiler and pump; this is in connection with construction of system for irrigation of 7000 acres on both sides of river. (Further facts recently mentioned.)

Tex., Angleton.—Commissioners of Brazoria County Drainage District, O. W. Willets, chairman, will receive bids until October 4 for excavation of 646,786 cubic yards of earth in construction of canals, drains, etc.; William Bradburn, engineer in charge, Pearland, Tex. (See "Machinery Wanted.")

W. Va., Martinsburg.—Charles B. Hart, Alexander Clohan and N. T. Frame have plans by Mr. Smith, engineer, Wheeling, W. Va., for irrigating 91 acres; will construct reservoir.

W. Va., Martinsburg.—Hart-Clohan Company has plans by C. C. Smith, Wheeling, W. Va., for installation of additional turbine wheels and sawmill machinery; will use power to pump water for irrigating several acres of truck land; hydraulic rams contemplated.

ELECTRIC LIGHT AND POWER

Ark., Stephens.—E. R. Smith, Trinity, Tex., purchased Stephens Canning & Manufacturing Co.'s plant, and will convert it into electric-light plant; machinery ordered.

Fla., Jacksonville.—Board of Bond Trustees is considering tentative plans for erection of electric and power station; Scofield Engineering Co., Philadelphia, Pa., with which Board has been negotiating, estimates cost (including construction and removal of machinery from old plant to proposed structure) at \$370,000.

Fla., St. Augustine.—Security Investment Co. incorporated with T. R. Osmond, president; E. N. Calhoun, vice-president, and B. E. Dyson, secretary-treasurer; will acquire property of St. Johns Light & Power Co., which furnishes electricity and operates electric railway, and plans various improvements, including seaside resort, with pavilion and cottages.

Ga., Savannah.—Suburban Lighting Co. incorporated with \$15,000 capital stock by J. O. Bewan, W. Bewan, P. Bewan and M. D. McNeill.

Ky., Midway.—Kentucky Female Orphan School has begun erection of proposed three-story building in which to install heating, lighting and laundry equipment; cost \$15,000.

Ga., Alto.—State Tuberculosis Sanatorium will erect power-house; 18x24 feet; brick; metal roof; bids will be received until September 30; W. G. Raoul, chairman executive committee, 708 Gould Bldg., Atlanta, Ga. (See "Machinery Wanted.")

Md., Baltimore.—Board of Awards awarded contract to F. Decker & Son, 1209 East Biddle St., Baltimore, at \$24,900 to erect power-house at Bayview Asylum; one story; brick and stone; plans by Parker, Thomas & Rice, 1109 Union Trust Bldg., Baltimore; contract for engines and generators awarded at \$23,722 to Kingsbury-Samuel Electric Co., 213 North Calvert St., Baltimore.

Miss., Cleveland.—Home Light & Ice Co., J. H. Fewell, manager, recently reported incorporated with \$10,000 capital stock, will install direct-connected 30-kilowatt 2300-volt 60-cycle engine and generator; officers not yet elected.

Mo., Kansas City.—Metropolitan Street Railway Co., John M. Egan, president, will erect addition to lighting and heating plant in which to install three new boilers; site frontage of 25 feet.

N. C., Asheville.—Tri-County Public Service Corporation, R. S. Howland, president, will furnish electricity for lighting and power. (Company was recently reported incorporated under "Telephone Systems.")

Okl., Pryor Creek.—W. L. Jones will construct electric-light and ice plant recently mentioned; machinery to be installed will consist of 50 and 100-kilowatt direct-connected high-speed units, 10-ton ammonia condenser and necessary ice-plant equipment; E. T. Archer of E. T. Archer & Co., engineers, 426 Beals Bldg., Kansas City, Mo., is preparing plans and specifications. (Recently mentioned.)

Tex., Greenville.—Greenville Railway Co., Albert Emmanuel, president, will construct power-house.

Tex., Comfort.—Stevens & Stahmank, 7th and High Sts., will install eight-horse-power gasoline engine and electric generator for 15 fans.

FERTILIZER FACTORIES

Ala., Foley.—Foley Fertilizer Co. awarded contract to J. P. Greenwood, Foley, for erection of addition to plant; 60x100 feet; frame; 18-foot studding; solid concrete foundation two feet wide entirely around building. (Recently noted.)

Ga., Milledgeville.—Farmers' Guano Co. incorporated with \$15,000 capital stock; will establish fertilizer factory.

Md., Baltimore.—Plant & Land Food Co., A. B. Pickett, president, 407 East Saratoga St. (recently noted to purchase site), will erect 32x72-foot brick building; date of opening bids not set.

N. C., Durham.—Virginia-Carolina Chemical Co., Richmond, Va., awarded contract to N. Underwood, Durham, for erection of additional building; brick; 150x100 feet; for dumping shed; will equip for grinding and dry mixing; annual capacity 25,000 tons fertilizer.

S. C., Lancaster.—Catawba Fertilizer Co. incorporated with \$50,000 capital stock by

John T. Stevens (president), Leroy Springs and L. C. Lazenby; will establish fertilizer factory; erect buildings; capacity 20,000 tons fertilizer, 10 tons of acid.

Tennessee.—American Gypsum Co., New Bank of Commerce Bldg., St. Louis, Mo., will establish plant to manufacture fertilizer, etc. (See "Miscellaneous Factories.")

FLOUR, FEED AND MEAL MILLS

Tenn., Franklin.—D. Farr will erect flour mill; daily capacity, 50 barrels; cost within \$4000.

Tex., Taylor.—Taylor Milling Co., recently reported incorporated with \$35,000 capital stock, has taken over mills owned by Thompson & Bland; will continue operations; no further machinery needed; J. N. Rayzor, president; F. M. Rayzor, first vice-president; and general manager; G. E. King, second vice-president; J. S. Jones, secretary-treasurer.

GAS AND OIL DEVELOPMENTS

Tex., Markham.—Burke Oil Co. increased capital stock from \$7000 to \$12,000.

Tex., Snyder.—Clarabel Edith Oil Co. incorporated with \$5000 capital stock by I. D. Scoggins, H. B. Patterson, W. W. Smith and B. N. Brown.

ICE AND COLD-STORAGE PLANTS

Ala., Mobile.—Southern Ice & Fuel Co. is being organized by Thomas Martin, John Cronin and others; awarded contract at \$18.00 to Carbondale (Pa.) Machine Co. for erection of absorption exhaust steam ice-making plant.

Ark., Ardadelphia.—Company is being organized with \$25,000 capital stock by F. Noland of Arkadelphia and F. J. Carpenter of Little Rock, Ark.; will establish ice plant with capacity of 60 tons.

Fla., Jacksonville.—Independent Ice & Fuel Co. incorporated with \$50,000 capital stock; Abe Ellis, president, Augusta, Ga.; J. Turner Butler, vice-president; A. D. McNeill, secretary-treasurer, both of Jacksonville.

Fla., Tampa.—Consumers' Ice Co. is having plans prepared by Bonfoey & Elliott, Tampa, for ice plant recently noted; cost \$18,000.

Okla., Pryor Creek.—W. L. Jones will construct ice plant recently mentioned; E. T. Archer of E. T. Archer & Co., engineers, 426 Beals Bldg., Kansas City, Mo., is preparing plans. (See "Electric Light and Power.")

Tex., Goliad.—Goliad Water & Light Co. contemplates establishment of ice plant.

Tex., Kingsville.—Taft Packing Co., Taft, Tex., William H. Klett, representative. Kingsville, is arranging to establish cold storage plant.

Va., Berryville.—Berryville Ice & Refrigerating Co. incorporated with \$50,000 capital stock; W. F. Lewis, president and general manager; John B. Neill, secretary-treasurer.

IRON AND STEEL PLANTS

Ala., Birmingham.—Iron Furnace.—Sloss-Sheffield Steel & Iron Co., Woodward Bldg., will blow in No. 1 city furnace.

Tenn., Chattanooga.—Iron Furnace.—Citico Furnace Co., H. S. Chamberlain, president, will blow out iron furnace for repairs.

LAND DEVELOPMENTS

Ala., Birmingham.—Southern Land & Mortgage Co. incorporated with \$10,000 capital stock by J. S. Kennedy, J. L. Kennedy, C. S. Kennedy and others.

Ala., Birmingham.—Birmingham Acreage Co. incorporated with \$24,000 capital stock by W. C. Gervin, Thomas G. McCahey, Nislet Hambaugh and others.

Ala., Dothan.—Malone Land Co. incorporated with \$100,000 capital stock by G. H. Malone, E. L. Marbury, W. S. Wilson and others.

Ala., Daphne.—Baldwin Alabama Farms Co. organized with J. H. Strode, president, Mobile, Ala.; E. L. Wilson, field agent, Daphne; E. L. Courtney, resident agent, Battle's Wharf, Ala.; will develop 30,000 acres of land near Daphne, known as Round Timber Tract.

Ala., Mobile.—Mobile Farm Land Co. incorporated with \$125,000 capital stock; L. J. Davis, president; H. O. Hanson, secretary; recently noted to develop 17,000 acres of farm lands.

Ark., Murfreesboro.—Memphis, Dallas & Gulf Townsite Co., W. M. Dodson, Hot Springs, Ark., president (recently reported incorporated with \$25,000 capital stock), contemplates development of some thousands of acres of cut-over land (owned by company)

as farming, townsite and industrial propositions.

D. C., Washington.—Catherine L. Shehan, 1738 15th St. N. W., purchased 25 acres of land in Chevy Chase View; will subdivide into one-acre lots, etc.

Fla., Jacksonville.—Jacksonville Suburban Corporation incorporated with \$300,000 capital stock; E. V. Toomer, president; W. M. Toomer, vice-president; Eugene Hale, secretary.

Fla., Bartow.—Southern Land Securities Co. of Bartow, and of Waycross, Ga., Alex. K. Sessoms, president, will develop lands (largely holdings of Sessoms Investment Co.) in Florida, Georgia and elsewhere; incorporated for \$50,000; main office, Bartow during development of Florida lands, comprising 40 and 10-acre subdivisions of 20,000-acre tract in lake regions. (Recently noted.)

Fla., Sarasota.—Webb & White, Maryland Telephone Bldg., Baltimore, Md., are negotiating for purchase of 12,000 acres farm land in Manatee county; present plan is to develop under name of Webb-White Company of Florida; land to be offered in farms of 10 acres or more.

Ga., Savannah.—R. L. Walker Company incorporated with \$50,000 capital stock by R. L. Walker, Gordon Saussy and others.

Fla., Manatee County.—Florida-Manatee Company, C. E. Rausch, president, Tampa, Fla., purchased 16,000 acres of land and will colonize and develop for citrus cultivation; will clear, plow and plant 60 trees to the acre.

Fla., Zellwood.—Florida Orange & Truck & Farm Co., represented by J. W. Jones, Dallas, Tex., purchased 15,000 acres of land on Lake Apopka and will colonize.

Ga., Cairo.—Calvary Improvement Co. is being organized by E. A. Maxwell, Charles W. Cary, J. S. Overstreet and others; will build town to be known as Calvary.

La., New Orleans.—J. L. Onorato purchased Laroque-Tourangeau estate for \$18,500; will subdivide and develop for residence park; will cut roadway, lay sidewalks, etc.

Mo., Neosho.—Rudy Land & Investment Co. incorporated with \$50,000 capital stock by Johnathan Speakman, Anna Speakman and E. C. Coulter.

Mo., St. Louis.—Atlantic Real Estate Co. incorporated with \$50,000 capital stock by P. C. Reinhardt, Bernard Greensfelder, Lee H. Miller and Myer C. Myerson.

Mo., St. Louis.—Roesenel Realty Co. incorporated with \$300,000 capital stock by P. C. Reinhardt, Lee H. Miller and Bernard Greensfelder.

Mo., St. Louis.—Prairie Townsite Co. incorporated with \$50,000 capital stock by Robert M. Foster, Edmond P. Meison and Robert M. Foster, Jr.

N. C., Transylvania County.—Coxe estate, Asheville, N. C., purchased Buck Forest, consisting of several thousand acres of land, and will develop as annex to Battery Park Hotel; will construct dam to develop water-power; also 500-acre lake, erect clubhouse, etc.

Okla., Oklahoma City.—Oakes-Chandler Realty Co. incorporated with \$200,000 capital stock by Cam Gault, T. A. Chandler and Roy C. Oakes.

Okla., Oklahoma City.—Hawk Realty Co. organized with \$200,000 capital stock by S. C. Hawk, H. A. Hawk of Lexington, Okla.; F. J. Hawk and V. R. Ray of Oklahoma City and J. W. Hocker of Purcell, Okla.

Tenn., Memphis.—Globe Realty Co. incorporated with \$30,000 capital stock by Frank Brasler, J. S. Allen, W. E. Cogdell and others.

Tex., Chapin.—J. E. Boren, 404 Moore Bldg., San Antonio, Tex., will cultivate 150 acres in figs and 100 acres in truck farming. (See "Canning and Packing Plants and Machinery Wanted.")

Tex., El Paso.—Loomis Farm Co. incorporated with \$50,000 capital stock by A. M. Loomis, R. W. Loomis and P. M. Jacobs.

Tex., Galveston.—Gulf Coast Development Co. increased capital stock from \$100,000 to \$125,000.

Tex., Houston.—Sunset Realty Co. incorporated with \$100,000 capital stock by B. R. Hardin, Richard Rodgers and others.

Tex., La Porte.—Alex. Nagy and S. Dombly, both of Chicago, Ill., representing Hungarian Farmers' Federation, purchased 100 acres of land and will locate colony; will erect community house 14x36 feet.

Va., Richmond.—Chesterfield Park Corporation incorporated with \$50,000 capital stock; Warner Moore, president; T. J. King, vice-president; both of Richmond; Charles L. Van Noppen, secretary-treasurer, Greensboro, N. C.

Tex., San Antonio.—Southwestern Land

Corporation increased capital stock from \$25,000 to \$100,000.

Tex., Texarkana.—Board of Trade Land Co., recently reported incorporated with \$25,000 capital stock, will develop manufacturing sites; J. A. Pondrom, president; Ben M. Foreman, vice-president; Louis Heilbron, secretary-treasurer.

LUMBER MANUFACTURING

Ala., Birmingham.—Standard Lumber Co. incorporated with \$25,000 capital stock; H. B. Wood, president; J. R. Jones, vice-president; A. H. Wood, secretary.

Ala., Mobile.—South Alabama Lumber Co. incorporated with \$300,000 capital stock by H. H. Wheelless, W. B. Patterson, W. H. Hearne and E. W. Wheelless.

Ala., Montgomery.—Cromwell Hardwood Lumber Co., Jackson, Miss., purchased Nixon Lumber Co.'s plant, and will operate; expects to have daily output of 25,000 feet of hardwood; expenditure about \$30,000.

Fla., Jacksonville.—South Jacksonville Lumber Co. incorporated with \$100,000 capital stock; W. M. Toomer, president; S. J. Warren, vice-president and general manager; W. O. McGowan, secretary-treasurer.

Fla., Tampa.—American Mahogany Co. (previously noted) on recent organization elected Chas. A. Dewing of Kalamazoo, Mich., president; Harry E. Simons, Detroit, Mich., secretary-treasurer; capital stock \$1,000,000; has acquired mill site at Port Tampa; immediate erection of mill building not contemplated. (Information furnished by John H. Bissell, Bank Chambers, Detroit, Mich., previously noted as representative.)

Ga., Savannah.—McIntosh Land & Timber Co. incorporated with \$15,000 capital stock by K. D. Steere and G. D. Steere.

Ga., Valdosta.—W. A. Griffith Turpentine Co. purchased 1700 acres of turpentine timber land in Lowndes county; reported purchase price \$2000.

Ky., Ashland.—North Fork Timber Co., recently reported incorporated with \$150,000 capital stock, proposes to purchase standing timber; no further plans decided upon. John F. Hager may be addressed.

Ky., Louisville.—Consolidated Coal, Coke & Timber Co. incorporated by James A. Shuttleworth and others. (See "Coal Mines and Coke Ovens.")

La., Elton.—J. A. Bell Lumber Co., Eatherwood, La., will, it is reported, erect sawmill.

MD., Baltimore.—Baltimore Lumber Co., 1119 Watson St., purchased site fronting 52 feet on Central Ave. and plans erection of sawmill as addition to present plant.

Mo., St. Louis.—Belleville Land & Lumber Co. incorporated with \$14,000 capital stock by Walter Liese, Felix Rhein, Herman Lutz and others.

Tenn., Chattanooga.—McGregor Manufacturing Co. incorporated with \$30,000 capital stock by I. R. Balcomb, A. A. McGregor, J. E. Berry and others.

Tenn., Elizabethton.—Dover Lumber Co. incorporated with \$50,000 capital stock by C. Bolce, W. S. Whiting, W. A. Wells and others.

Tex., Houston.—Hardin Lumber Co. increased capital stock from \$30,000 to \$50,000.

Tex., Laredo.—City Lumber Co. incorporated with \$25,000 capital stock by Peter Leventecker, J. P. Leventecker and J. F. Mulally.

Tex., Yoakum.—Ross & Shall will establish planing mill; machinery being received; contemplates later adding sash and door factory.

W. Va., Martinsburg.—Hart-Clohan Company has plans by C. C. Smith, Wheeling, W. Va., for installation of sawmill machinery. (See "Drainage and Irrigation.")

W. Va., Meadow Bluff.—Smith-Martin Lumber Co. incorporated with \$20,000 capital stock by J. S. McWhorter, Lewisburg, W. Va.; E. E. Butz, Allentown, Pa.; S. T. Stime, Elizabethtown, Pa., and others.

MINING

Ala., Birmingham.—Noala Land & Mining Co. incorporated with \$100,000 capital stock by J. W. Ray, R. N. McDonough, J. T. Stokely and S. H. Green.

MD., Woodsboro.—Slate.—Washington-Woodsboro Slate Co. incorporated with \$100,000 capital stock by John Hersberger, Louis Hartig, Robert Mattingly and others.

Missouri.—Iron.—Puxico Iron Co. of Puxico, Mo., purchased iron-ore mines of Big Muddy Coal & Iron Co. in Arcadia Valley, including 25,000 acres.

Mo., Aurora.—Lead and Zinc.—Coleman-Scott Mining Co. incorporated with \$9000 capital stock by M. L. Coleman, W. H. Scott, J. W. Coleman and others.

Mo., Joplin.—Lead and Zinc.—Three J's organized by John Tow, John Ellis and J. Gill of Webb City, Mo.

Mo., Joplin.—Lead and Zinc.—Melrose Mining Co. incorporated with \$50,000 capital stock by Fred S. Rowe, Fred W. Kelsey, M. B. Chartelle and others.

Mo., Joplin.—Lead and Zinc.—Melrose Mining Co. incorporated with \$50,000 capital stock by Fred S. Rowe of Nowata, Okla.; Fred W. Kelsey, A. B. Chartelle, both of Joplin, and others.

Mo., Joplin.—Zinc.—H. M. Handsby, Pleasanton Rd., San Antonio, Tex., sold tract of zinc land to Boston capitalists, who will, it is reported, establish 200-ton milling plant.

Va., Harrisonburg.—Southern Manganese Mining Co., People's Bank Bldg. (recently reported to develop 238 acres of manganese land), is incorporated with \$100,000 capital stock (not "\$10,000," as previously incorrectly noted); will soon ship ore; large tonnage contemplated; T. E. Schrell, president; J. H. Thompson, vice-president; T. P. Beery, secretary-treasurer; R. F. Watson, general manager.

Va., New Castle.—Iron, etc.—Craig Iron & Timber Co. incorporated with \$30,000 capital stock; John Q. Dickinson, president; James F. Brown, vice-president; John L. Dickinson, treasurer, all of Charleston, W. Va.; A. T. Holcomb, secretary, Portsmouth, O.; main office, Charleston, W. Va.; contemplates future development of 20,000 acres iron ore property.

W. Va., Grafton.—Success Mining & Development Co. incorporated with \$200,000 capital stock by John S. Crogle, William C. Radcliff, William F. Merrill and others.

W. Va., Martinsburg.—Limestone.—National Limestone Co. (recently noted to have plans for establishment of plant) will develop 1034 acres; daily output, 3000 to 8000 tons when completed; will install crushing machinery with Edison Giant rolls; date of opening machinery bids not set; construction engineers, Ladd & Baker, Philadelphia, Pa.; H. L. Ahles, president; J. S. McNulty, vice-president and secretary; S. T. McCormick, treasurer; G. P. Grimsley, manager.

MISCELLANEOUS CONSTRUCTION

Ala., Mobile.—Piers.—Mobile Terminal Railway Co. incorporated with \$500,000 capital stock; proposes to build and maintain piers, docks, warehouses, passenger station, etc.; purchased property on Farmer's Island with frontage on Mobile River and One Mile Creek; John T. Cochrane, president; W. G. Cochrane, vice-president; K. P. Guthrie, secretary-treasurer.

Ark., Helena.—Trestle-filling.—St. Louis, Iron Mountain & Southern Railroad (Missouri Pacific system) awarded contract to Hodges & Downey Construction Co., St. Louis, Mo., for proposed work in filling in 30 trestles between McGehee and Helena, Ark.

Ark., De Witt.—Levees.—Arkansas county will construct eight levees; contract will be let September 14; L. C. Smith, County Judge.

Ky., Maysville.—Chesapeake & Ohio Railway, F. I. Cabell, chief engineer maintenance of way, Richmond, Va., will, it is reported, construct system of coal docks estimated to cost \$40,000.

La., New Orleans.—Levees.—State Board of Engineers, Cotton Exchange Bldg., will receive bids until September 15 for following work on left bank of Mississippi River: Pontchartrain Levee District—Billings levee, Iberville parish, side enlargement, contents 35,000 cubic yards; Ophelia levee, Iberville parish, river side enlargement, contents 43,000 cubic yards; Deckbar, Jefferson parish, new levee, contents 35,000 cubic yards. Lake Borgne Levee District—Scarsdale levee, Plaquemines parish, new levee, contents 20,000 cubic yards; Bertrandville levee, new levee, Plaquemines parish, contents 13,000 cubic yards; Monsecur levee, Plaquemines parish, new levee, contents 17,500 cubic yards. Grand Prairie Levee District—Vine Church levee, Plaquemines parish, new levee and enlargement, contents 16,000 cubic yards; Nestor to Burton levee, Plaquemines parish, enlargement and revetment, earthwork approximately 6000 cubic yards and approximate length of revetment 4800 feet.

La., New Orleans.—Levee.—Orleans Levee Board will extend Carrollton Levee in Sixth District from Walnut to Joseph St.; bids will be opened September 15. (See "Machinery Wanted.")

Miss., Meridian.—Dam.—Bids will be received until September 14 for construction of earthen dam; address J. M. T. Hamilton, civil engineer, P. O. Box 438. (See "Machinery Wanted.")

N. C., Transylvania County—Lake, etc.—Coxe estate, Asheville, N. C., will develop Buck Forest; plans to build dam, construct lake covering 500 acres, develop water-power, erect clubhouse, etc. (See "Land Developments.")

MISCELLANEOUS ENTERPRISES

Ala., Andalusia—Automobile Repair.—Andalusia Motor Car Co., recently reported incorporated with \$10,000 capital stock, has elected A. P. McGowan, president; E. T. Albritton, secretary; W. C. Randolph, manager; will conduct general repair shop.

Ala., Birmingham—Motor Cars.—Smith Motor Car Co. incorporated with \$12,500 capital stock by Charles S. Sibley, S. Lawrence Smith and J. B. Garber.

Ala., Mobile—Steamboat Line.—People's Steamboat Co., incorporated with \$200 capital stock; E. R. Morrisette, president; Owen F. Burke, secretary-treasurer; will establish steamboat line between Mobile, Selma and Montgomery, Ala.; also operate seagoing vessels.

Ark., Clarksville—Grain.—Laser Grain Co. incorporated with \$15,000 capital stock by Samuel Laser, Thomas S. Laser, Albert Laser and Alvin Laser.

D. C., Washington.—Amazonian Rubber Exchange incorporated with \$100,000 capital stock to cultivate and deal in rubber; primarily, plan is to exchange products of Amazon and Mississippi rivers by direct steamships from Southern ports by way of New Orleans and Mobile; J. O. Kerley, president; A. F. Campbell, vice-president and treasurer; John A. Emslie, secretary; office in Munsey Bldg., Washington.

Fla., Jacksonville—Engineering.—Southern Engineering Co., Suite 411-412 Clark Bldg., organized (at Chicago) by Alf Oldfield and Horace P. Ramey to conduct general engineering in Southern States, specializing in water-power development, municipal work and colonization projects.

Fla., St. Augustine—Seaside Resort.—Security Investment Co. organized; T. R. Osmond, president. (See "Electric Light and Power.")

Ga., Augusta—Cement, Gravel, Brick, etc.—H. M. Cassell, Good Roads Cement Gravel, Quartz Sand and Gravel, Brick, Tile and Clay Pipe Co. incorporated with \$60,000 capital stock by Horace M. Cassell of Aiken county, S. C.; Charles F. McKenzie, A. H. McDaniel, both of Augusta, and others.

Ga., Augusta—Dairy.—Sanitary Dairy Co. incorporated with \$15,000 capital stock by C. T. Pund, R. M. Morton and H. R. Pund.

Ga., Gainesville—Hardware.—Davidson Hardware Co. incorporated with \$30,000 capital stock by T. C. Miller, J. D. Cooley, W. H. Tiwery and others.

Ga., Savannah—Export.—Southern Export Co. incorporated with \$500 capital stock by Robert Knox, Thomas Hilt, both of Savannah, and Ernest V. Baltzer of North Carolina.

Ga., Tifton—Garage.—Dameron Garage Co. incorporated by R. L. Dameron, L. Pickard and J. W. McWilliams.

Ky., Lexington—Garage.—E. B. Drake will erect garage; frame; shingle roof.

Ky., Louisville—Electrical Supplies.—Bland Electric Co. incorporated with \$300 capital stock by W. G. Osborne, J. Osborne Bland and John Lansen.

Md., Baltimore—Amusement Park.—August Fenneman, Park Heights Ave., opposite Oakley Ave., purchased Electric Park, and will expend \$75,000 for improvements, including remodeling of theater, etc.

Md., Baltimore—Plumbing Supplies, etc.—Crook-Horner Supply Co. incorporated with \$100,000 capital stock by Wm. H. Pitcher, 17-19 East Pratt St.; Harry A. Booth, 3520 Pimlico Blvd., and others.

Md., Cumberland—Garage.—B. H. Bias and Alphens B. Cochran will erect garage; three stories; brick and concrete; fireproof construction; ground floor of cement; cost \$20,000.

Md., Frederick—Automobiles.—Frederick Automobile Co. incorporated with \$50,000 capital stock; F. B. Smith, president.

Md., Williamsport—Nursery.—Mountain View Nursery Co. incorporated with \$30,000 capital stock by John B. Flemming and Geo. T. Hetzer, Cyrus D. Bell and others.

Mo., Kansas City—Supplies.—Lewis Supply Co. incorporated with \$40,000 capital stock by William V. Lewis, Frank B. Williams and John C. Shearns.

Mo., St. Louis—Contracting.—Clarke & Ansbore Contracting Co. incorporated with \$200 capital stock by Patrick H. Clarke, John F. Ansbore and Robert E. Clarke.

Mo., St. Louis—Electrical Supplies.—South-

ern Electric Co. incorporated with \$600 capital stock by Wilfred Hearn, W. H. Close and C. Schnyder.

Mo., St. Louis—Publishing.—National Game Publishing Co. incorporated with \$10,000 capital stock by John T. Hunt, Michael J. Cullinane and others.

Mo., St. Louis—Contracting.—Clarke & Ansbore Contracting Co. incorporated with \$200 capital stock by Patrick H. Clarke, John F. Ansbore and Robert E. Clarke.

Mo., St. Louis—Construction.—Groh Building & Realty Co. incorporated with \$500 capital stock by Herman Zehrt, C. M. Groh and others.

Mo., St. Louis—Taxicabs.—Missouri Taxicab Co. incorporated with \$25,000 capital stock; Walter Isaacs, Herman Rindskopf and others.

Okla., Clinton—Publishing.—Custer County Publication Co. incorporated with \$10,000 capital stock by William Walker, John Shull and Geo. Saunders.

Okla., McAlester—Transfer and Cars.—O. K. Transfer & Car Co. incorporated with \$10,000 capital stock by Fred C. Russell, John F. Russell and William S. Hamilton.

S. C., Aiken—Publishing.—Sentinel Publishing Co. incorporated with \$550 capital stock by Walter E. Duncan and Robert M. Hitt.

S. C., Marion—Construction.—Independent Construction Co. incorporated with \$43,000 capital stock; W. J. Montgomery, president and treasurer; M. C. Woods, vice-president and assistant treasurer; J. C. Mace, secretary.

S. C., Marion—Construction.—Independent Construction Co. incorporated with \$43,000 capital stock; W. J. Montgomery, president; M. C. Wood, vice-president.

S. C., Spartanburg—Steam Laundry.—Spartanburg Steam Laundry Co. incorporated with \$25,000 capital stock; R. H. Rudisard, president; C. E. Band, secretary.

Tenn., Memphis—Printing.—Young Printing Co. incorporated with \$30,000 capital stock by A. E. Young, B. M. Philley and Frank Young; acquires plant of Sun Printing Co.

Tenn., Chattanooga—Garage.—Joe Miles has contract to remodel Hippodrome Skating Rink into garage; plans by and construction under supervision of J. G. Barnwell, Chattanooga.

Tex., Bryan—Printing.—Eagle Printing Co. incorporated with \$17,000 capital stock by J. N. Coole, C. W. Crisler, M. E. Wallace and others.

Tex., El Paso—Hardware.—Electra Hardware Co. incorporated with \$6000 capital stock by A. T. McDannald, C. E. McDannald and T. J. McDannald.

Tex., El Paso—Refuse Disposal Plant.—City will open bids September 20 for construction of \$100,000 garbage, refuse and sewage-disposal plant recently noted; plant includes building for combined incinerator and pumping station; reinforced concrete; 2,000,000 and 3,000,000-gallon centrifugal pumps and one acre of filter beds with necessary dosing tanks; Public Works Engineering Co., Beck Bldg., Portland, Ore., engineers in charge; F. H. Todd, City Engineer. (See "Machinery Wanted.")

Tex., Ganado—Hardware.—Ganado Hardware Co. incorporated with \$20,000 capital stock by N. T. Mauritz, Fred. Mauritz and Harry Mauritz.

Tex., Houston—Cottonseed and Rice.—C. W. Robinson Company organized to deal in cottonseed and rice products; S. Samuels, president; B. F. Louis, treasurer; C. W. Robinson, manager. (Recently incorrectly noted under "Cottonseed-oil Mills.")

Va., Madison—Publishing.—Madison Publishing Co. incorporated with \$500 capital stock by N. G. Payne, president; J. J. Fray, vice-president; F. P. Smith, Jr., secretary-treasurer; will install printing presses.

Tex., Sherman—Nursery.—Texas Nursery Co. increased capital stock from \$50,000 to \$100,000.

Va., Newport News—Daily Press, Inc., awarded contract at \$9851 to J. W. Davis, Newport News, for erection of printing plant; two stories and basement; brick; fireproof; reinforced concrete floors; 25x25 feet; air-shaft from basement to roof; steam heat; brick and concrete for foundation for press; elevator for carrying at least one roll of paper from basement to pressroom; install two-deck press, each deck containing two pairs of printing cylinders, each plate cylinder carrying four stereotype plates, making maximum capacity 16 plates to print 16 pages; driven by 15-horse-power electric motor; separate motors for stereotyping plant; plans by C. T. Holtzclaw, Hampton, Va.

Va., Richmond—Automobile Equipment.—Standard Auto Equipment Co. incorporated

with \$10,000 capital stock; R. C. Pattee, president; George A. Perry, secretary-treasurer; C. Rideway Moore, vice-president.

Va., St. Paul—Hardware.—St. Paul Hardware Co. incorporated with \$10,000 capital stock; J. D. McReynolds, president, St. Paul; S. A. Ratcliff, vice-president; F. P. Hurt, secretary-treasurer, both of Norton, Va.

W. Va., Charleston—Mausoleums.—Charleston Mausoleum Co. incorporated with \$50,000 capital stock by W. G. Morris, president; G. A. McQueen, J. W. Crider and others; will erect mausoleum and other buildings; is now erecting \$30,000 fireproof structure at Charleston; contemplates erection of other buildings in the near future.

W. Va., Wheeling—Garage.—Engineer Equipment Co. awarded contract to H. W. Fair, Wheeling, for erection of garage; 60x120 feet; one story.

W. Va., Parkersburg—Builders' Supplies.—Parkersburg Builders' Supply Co. incorporated with \$25,000 capital stock by Harvey Marsh, S. H. Lowther, John B. Payne and others.

MISCELLANEOUS FACTORIES

Ala., Castleberry.—J. A. & A. P. Smith will rebuild turpentine stills reported burned; loss \$1000.

Ala., Montgomery—Showcases.—Montgomery Showcase Co., Bert C. Weil, president and treasurer, had plans made for erection of two-story addition to factory, 75x100 feet; work to commence in about two weeks; has contracted for additional machinery.

Ala., Montgomery—Brooms.—Farmers' Union Warehouse (J. B. Stevens, 700 Cleveland Ave., and C. L. Gay interested) is planning to plant over 100 acres of broom corn and establish plant to manufacture brooms; cost \$4000.

Ala., Wilmer—Syrup.—Wilmer Pure Cane Syrup & Farming Co. organized with \$50,000 capital stock; H. A. Forchheimer, president; L. I. Brannan, vice-president; Henry Brannan, treasurer; R. L. Whately, secretary; will plant sugar cane and establish plant to manufacture cane syrup; contemplates establishment of cannery and cold-storage plant later.

Ark., Texarkana—Peanuts.—Texarkana Peanut & Candy Co. organized with \$10,000 capital stock by A. W. Greer of Mt. Pleasant, Tex.; will erect warehouse and two other buildings and establish peanut factory.

Fla., Bartow—Cigars.—Lee Kemp will erect factory building to be occupied by W. H. Saunders for Left 2 U Cigar Factory.

Fla., Palmetto—Brooms, Brushes, etc.—Florida Manufacturing Co. incorporated with \$80,000 capital stock by Oscar A. De Long, Montclair, N. J.; William Schlecht, Bradenton, Fla.; K. S. Haines, Ellenton, Fla.

Fla., St. Augustine—Boats.—A. Drysdale and Henry Capro purchased site and will establish boat plant; will utilize metal warehouse on site and erect building 40x60 feet for workshop, install power plant and construct dock.

Fla., Tampa—Clothing.—W. E. Smith of New Orleans, La., plans organization of company with \$25,000 capital stock to establish clothing factory.

Ga., Atlanta—Beverages.—Imperial Fruit Extract & Beverage Co. incorporated with \$10,000 capital stock by Geo. A. Bradley and Thomas B. Brown.

Ga., Douglasville—Lace Cabinets.—Krom Lace Cabinet Co. organized with \$10,000 capital stock; J. T. Duncan, president; C. F. Krom, vice-president; J. R. Duncan, secretary-treasurer; C. O. Dorsett, manager; will manufacture lace cabinets; machinery purchased.

Ga., Macon—Switchstand.—James S. Brown, Box 463, purchased interest in and will promote manufacture of automatic safety appliance switchstand invented by H. H. Lloyd of Macon.

Ga., Rome—Medicine.—Rome Medicine Co. incorporated; D. T. McCall, president; will manufacture medicine.

Ga., Savannah—Blower and Pipe.—Archer Blower & Pipe Co. of Seattle, Wash., has not decided on location of plant recently reported to be established.

La., Abbeville—Sugar Refinery.—J. A. Summers and associates contemplate establishment of sugar refinery.

Mo., Marshall—Shoes.—Monnig Shoe Co. (recently noted to establish shoe factory) will erect 50x230-foot building; details not determined; will install machinery. Hugo Monnig, Jefferson City, Mo., may be addressed.

Mo., St. Louis—Clothing.—Knickerbocker Clothing Co. incorporated with \$25,000 capital stock by Walter Weinstein, Max Linsky and Albert Epstein.

Mo., St. Louis—Toys.—Rowmobile Mfg. Co. incorporated with \$200,000 capital stock by Frederick H. Portmann, Frederick Boettler and Matthew McGowan.

Mo., St. Louis—Roofing.—Finger Roofing Co. incorporated with \$250 capital stock by George Finger, Philip W. Finger and others.

Md., Federalsburg.—O. G. Williamson purchased shirt factory of W. J. Wright; will rebuild, install new machinery and operate.

Miss., Silver Creek—Hay Presses.—Southern Hay Press Manufacturing Co. incorporated with \$25,000 capital stock by Thomas M. Freeman, F. W. Ehman and others.

Mo., Kansas City—Mashburn Manufacturing Co. incorporated with \$50,000 capital stock by J. F. Mashburn, J. W. Mashburn and S. I. Hall.

Mo., St. Louis—Chemicals.—Star Chemical Co. (recently reported incorporated with \$100,000 capital stock) will manufacture preparatory remedies and pharmaceuticals; G. M. D. Mervin, president; C. J. Stattler, secretary-treasurer; plans not decided.

Mo., St. Louis—Brakes.—American Brake Co. awarded contract for erection of addition to plant; iron-clad; 11x121 feet.

Mo., St. Louis—Drugs, etc.—Lloyd Chemical Corporation incorporated with \$200,000 capital stock; John Q. Lloyd, Lawrence F. Webster and William C. Brown.

Mo., St. Louis—Medicine.—Dr. L. D. Le Gear Medicine Co. incorporated with \$100,000 capital stock by Louis D. Le Gear, William A. Le Gear and Samuel A. Humphrey.

Mo., St. Louis—Motion-picture Supplies.—Motion Picture Supply Co. incorporated with \$300 capital stock by William H. Swanson of Chicago, Ill.; Isidor Wagner, Fred A. Keller and Barney Rosenthal, all of St. Louis.

Mo., St. Louis—Paint, etc.—St. Louis Surface & Paint Co. increased capital stock from \$30,000 to \$50,000.

Mo., St. Louis—Stock Systems.—Simplex Stock Systems Co. incorporated with \$10,000 capital stock by Carl C. Irwin, A. E. Hurst and Geo. Bauer.

Mo., St. Louis—Concrete Appliance.—Tower & Mixer Manufacturing Co. incorporated with \$200,000 capital stock by Breckenridge Morehead, O. H. Shreyer and others.

Mo., St. Louis—Canvas Goods, etc.—Zittlen Manufacturing Co.'s new plant (contract recently noted awarded) will accommodate two of the company's departments; practically four-story building, 100x125 feet, open to light and air on four sides; half of basement and first floor for machine shop and stitching floor for manufacture of wagon umbrellas, etc.; tents and kindred products made on second and third floors; separate building for ovens, power and heating plant; machinery for plant determined; office, 310 Elm St.; H. E. Schultz, Jr., president.

Okla., Tulsa—Motorcycles.—O. E. Osborn of Alton, Ill., contemplates, it is reported, establishment of \$250,000 motorcycle factory.

Okla., Oklahoma City—Syrup Compounds, etc.—Gilek & Co. will manufacture "Okla Vita" compounds; capital stock \$20,000; Thomas O. Gilek, president; Charles F. Mouser, vice-president; Guy C. Gum, secretary-treasurer. (See "Machinery Wanted.")

Okla., Vinita—Woodcock Mfg. Co. incorporated with \$20,000 capital stock by J. C. Woodcock, Marshall Stevens, C. W. Day and others.

S. C., Georgetown—Chemicals.—Georgetown Chemical Co. increased capital stock from \$100,000 to \$200,000.

S. C., Charleston—Gas Plant.—Charleston Consolidated Railway & Lighting Co. awarded contract to Gadsden Contracting Co. of Savannah, Ga., for erection of gas plant consisting of boiler-room of solid concrete and stucco and equipped with two 155-horse-power boilers, with coal sheds adjoining; generator-room, blow and exhaust room; gas building, 73x60 feet, with capacity of 2,000,000 feet of gas daily, and containing two sets of gasmaking equipment; iron shell relief holder with capacity of 50,000 cubic feet of gas, and fitted with system of pipes running from gas plant to holder and onward to main gas tank; plant two stories; second floor of iron plates built over eight seven-foot iron cylinders; red-tiled roof equipped with ventilators; stucco walls with glass windows in metal framework; eave extending three feet from roof; eight iron shells on first floor of main building, piercing second story, while four others will be covered in story below; cylinders will be 15 feet high by 7 feet in diameter; condensers, purifiers, tar separators, etc., will handle gas before it is finally admitted to 500,000-foot main tank. (Previously mentioned.)

Tennessee—American Gypsum Co., New Bank of Commerce Bldg., St. Louis, pur-

chased plaster bluff on Little Missouri River and will establish \$100,000 plant to manufacture plaster of paris, fertilizer, etc.

Tenn., Chattanooga.—Mattresses.—Chattanooga Mattress Co. incorporated with \$10,000 capital stock by J. F. Johnson, Charles C. Moore, Geo. H. West and others; is reorganization of Wallace Bros.; will increase equipment and make other improvements; office, 113 Carter St.

Tenn., Columbia.—Gas Plants.—Diamond Gas Co. of Nashville, Tenn., contemplates, it is reported, establishment of plant to manufacture cold-process gas plants.

Tex., Carmine.—Creamery.—Carmine Creamery Co. incorporated with \$3000 capital stock by Joe Wagner, J. A. Weyand and William Root.

Tex., Amarillo.—Northwestern Mfg. Co. incorporated with \$25,000 capital stock by J. W. Greenwood, C. P. Smith and Geo. A. Ryan.

Tex., Dallas.—Gloves.—S. A. Nantz, Muskogee, Okla., is interested in establishment of plant to manufacture cotton gloves; weekly capacity 1500 dozen gloves.

Tex., Galveston.—Creamery.—K. McKinsie proposes establishment of creamery.

Tex., Orange.—Breakfast Foods.—C. P. Tappan of Worcester, Mass., contemplates establishment of factory for manufacturing breakfast foods from cereals.

Tex., Settle (not a postoffice).—Shoes.—Phit Eze Shoe Co., F. G. Bryan, president, Binz Bldg., Houston, Tex., will open bids about September 10 for erection of shoe factory; 50x100 feet; stucco; cost \$7000; plans by Cooke & Co., Houston, Tex.; Chas. G. Holme, engineer in charge of construction; install machinery; daily capacity 200 pairs shoes. Address architects.

Tex., Sugarland.—Paper.—Sugarland Pulp & Paper Co. awarded contract to S. M. Depwe, Sr., of Orange, Tex., for rebuilding and repairing paper mill. (Previously noted.)

Va., Front Royal.—Jellies, etc.—J. B. Harnsberger of Old Virginia Orchard Co. is organizing company with \$10,000 capital stock to establish plant to manufacture jelly, preserves, cider, vinegar, etc. (See "Machinery Wanted.")

Va., Norfolk.—Tobacco.—Machin-Zimmer Company incorporated with \$100,000 capital stock; Theo. B. Machin, president; William L. Zimmer, Jr., secretary-treasurer.

W. Va., Wheeling.—Hazel-Atlas Glass Co., 12th and Jacob Sts., awarded contract to H. W. Fair, Wheeling, for erection of proposed addition to plant; four stories; steel, brick and concrete; three upper floors of slow-burning construction; 62x160 feet; cost \$20,000.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, SHEDS, ETC.

Ala., Mobile.—Mobile Light & Railroad Co. has awarded contract at about \$8500 for erection of fireproof storeroom at Monroe Park car shops; plans by Stone Bros., architects, 100 Einstein Bldg., Mobile. (Recently mentioned.)

ROAD AND STREET WORK

Ala., Huntsville.—City awarded contract to Metropolitan Street Paving Co. of Huntsville to pave Meridian St. with mineral rubber.

Ala., Birmingham.—Jefferson County Board of Revenue awarded following contracts, aggregating \$12,040, for road construction as follows: Johns and county line, to T. W. Wright for \$4273; Lewisburg and Walker's Chapel, to Felix J. Ellard for \$1022; Waterworks Hill, to A. F. Bearden for \$1486; Short Creek road, to Vines & Horton for \$1285; Shoal Creek road, to Parker & Cox for \$865; Brookside and Mineral Springs, to Wade & Bradford for \$2041; Shades Mountain and Pool's Ford, to H. W. Parker for \$1868; contractors all of Birmingham.

Ala., Birmingham.—City opened bids September 7 for certain grading, curbing, gutters, sidewalk and bituminous-binder macadam.

Ala., Florence.—City awarded contract to J. H. Angel of Florence to construct crushed limestone roadways on Royal and Sherrod Aves. and Walnut St.; J. B. White, City Clerk. (Recently mentioned.)

Ala., Gadsden.—City awarded contract to Harry Hopkins of Gadsden at about \$10,000 to lay sidewalks in business section; William Hill, City Engineer. (Recently mentioned.)

Ala., Montgomery.—City will improve Day St. by grading, curbing, constructing sewers, etc.; pave roadway on Highland Ave. with clay gravel, together with granite curb, sew-

ers, gutters, etc.; pave sidewalks with hexagon tile or Schilling pavement, together with necessary curb, gutters, sewers, etc., Highland Ave., South Perry St. and South Court St.; bids will be received until September 19; Robert Taft, City Treasurer. (See "Machinery Wanted.")

Ala., Montgomery.—City awarded contracts for paving sidewalks on Decatur and Semmes Sts. and roadway on Coosa St.; Robert Taft, City Treasurer.

Ark., De Witt.—Arkansas county will construct road extending about five miles past of Stuttgart; contract will be let September 14; L. C. Smith, County Judge.

Ark., Little Rock.—City contemplates paving 15th St. with brick or asphalt on concrete base; also grading, curbing and paving with vitrified brick 11th St., Schiller Ave., Park Ave., 13th St.; George A. Stratman, Mayor.

Ark., Texarkana.—Miller county will petition Legislature for authority to issue \$400,000 road bonds. Address County Commissioners.

Fla., Fort Pierce.—St. Lucie County Commissioners are having plans prepared for proposed construction of 70 miles of hard-surfaced roads.

Fla., Bartow.—City will construct one mile of vitrified-brick pavement on Main St. recently noted; also five miles of brick or cement sidewalks and gutters; Charles H. Walker, Mayor. (See "Machinery Wanted.")

Fla., St. Petersburg.—City voted issuance of \$67,500 of bonds for vitrified-brick paving. Address The Mayor. (Recently mentioned.)

Ga., Cedartown.—City will construct about 1900 square feet of cement sidewalks and 275 linear feet 30-inch combination curb and gutter on grounds of Water and Light Department; H. N. Van Devander, chairman Water and Light Commission; J. C. Walker, City Clerk.

Ky., Lexington.—City will pave South Broadway with brick, asphalt or creosoted wooden blocks; about 4700 square yards paving for city; 1890 square yards paving for Lexington Railway Co.; 335 cubic yards concrete for city; 63 cubic yards concrete for railway company; 1150 feet limestone or granite curbing; bids will be received until September 12; John Skain, Mayor. (See "Machinery Wanted.")

Ky., Louisville.—Board of Public Works awarded contracts for paving 10 alleys with vitrified blocks as follows: G. W. Gosnell, five blocks; L. R. Figg & Co., four blocks; Jefferson County Construction Co., one block; contractors all of Louisville.

Ky., Lexington.—City will construct concrete sidewalks four feet wide, curbing and guttering on both sides of College View Ave., from Lexington Ave. to Rose St.; bids opened September 7; W. M. Bateman, chairman Board of Public Works.

La., New Orleans.—Finance Committee recommends acceptance of bids of Barber Asphalt Co. (main offices, Philadelphia, Pa.) for repaving Montegut St., \$6002, and surface drainage for same, \$2940; paving Canal St. at \$2013, and subsurface drainage, \$1361.

Mo., Kansas City.—City Council adopted resolutions providing for paving repairs on 42 streets, including Holmes, 17th, Jefferson, Summit, 9th, 16th and other streets; James L. Darnell, City Engineer.

N. C., Wilmington.—City will grade Hanover St.; bids to be opened September 9; Louis S. Belden, chairman Street Commission. (See "Machinery Wanted.")

Okla., Hugo.—City will pave Railroad, Dewey, Crockett and other streets; bids will be received until September 20; W. T. Echols, City Clerk; R. L. Jones, Mayor. (See "Machinery Wanted.")

Tenn., Rogersville.—Hawkins County Road Commission, Walter Smith, chairman, has not set date for receiving bids on macadamizing road (recently noted) from Caney Creek to Alum Well; cost \$10,000; J. L. Cressap, County Engineer, has also completed preliminary survey for grading and macadamizing road from Alum Well to Hale Springs, 4½ miles; this work to be done by United Pressman's Association, recent purchaser of Hale Springs.

Tex., Dallas.—City will pave Main St. from Houston to Water St., Market St. from Jackson St. to Pacific Ave., and Griffin St. from Cochran St. to Pacific Ave.; bids will be received until September 9; J. B. Winslett, City Secretary. (See "Machinery Wanted.")

Tex., Dallas.—City awarded contract to Municipal Paving Co. of Dallas at 75 cents per square yard for resurfacing Elm St. from Central to Crowds St., and McKinney Ave. from Routh to Harwood Sts.

Tex., San Angelo.—City contemplates voting on issuance of \$20,000 of bonds for paving

three blocks of Chadbourne St. Address The Mayor.

Va., Norfolk.—Bids will be received until September 19 for construction of three miles of macadam on Cottage Hill Rd. between Norfolk and Ocean View; P. St. J. Wilson, State Highway Commissioner, Richmond, Va.; Alvah H. Martin, chairman Permanent Road Improvement Commission. (See "Machinery Wanted.")

SEWER CONSTRUCTION

Ark., Searcy.—City awarded contract to Founcey Paving & Construction Co., Helena, Ark., to construct sewer system; estimated cost \$20,000. (Recently mentioned.)

Fla., Fort Myers.—City voted issuance of \$35,000 of bonds for construction of sewer system. Address The Mayor. (Recently mentioned.)

Fla., St. Petersburg.—City voted issuance of \$5000 of bonds for sewer construction. Address The Mayor. (Recently mentioned.)

Ga., Cairo.—R. E. Gassett of Moultrie, Ga., purchased Whigham Telephone Exchange and will improve and extend system.

Ky., Georgetown.—City awarded contract to Howard Bell, Lexington, Ky., to construct 1035 feet of 42-inch and 36-inch reinforced concrete storm-water drain; Alexander Potter, consulting engineer, 114 Liberty St., New York; J. H. Cleary, City Clerk. (Recently mentioned.)

Ky., Winchester.—E. T. Lewis & Co., Nashville, Tenn., have contract at \$39,331.59 for construction of 8½ miles of sewers, varying from 6 to 15 inches diameter; Charles E. Collins, consulting engineer, Drexel Bldg., Philadelphia, Pa.; J. A. Hughes, Mayor. (Recently mentioned.)

Md., Easton.—City appointed Joseph B. Seth, Alexander Fountain and William H. Withcott as Sewerage Commission to formulate plans for construction of proposed sewer system.

Miss., Amory.—City is having plans prepared by Solomon-Norcross Company of Atlanta, Ga., for construction of sewers estimated to cost \$50,000. J. P. Johnson, Mayor. (Recently mentioned.)

Okla., Britton.—City will vote on issuance of \$15,000 of bonds for construction of sewer system. Address The Mayor.

N. C., Winston-Salem.—L. B. Brickenstein of Winston-Salem has contract to construct sewers in Crafton Heights.

Tenn., Cleveland.—City will vote October 4 on issuance of \$35,000 sewerage bonds. Address The Mayor.

Tex., Vernon.—City voted issuance of bonds for construction of sewer system. Address The Mayor.

TELEPHONE SYSTEMS

Fla., Jacksonville.—Southern Bell Telephone & Telegraph Co., Atlanta, Ga., will erect additional story to building; cost \$7500.

La., Farmerville.—Cumberland Telephone & Telegraph Co., Leland, Hume, general manager, Nashville, Tenn., will make improvements to system; will construct new lines to Calhoun, Downsboro and Farmerville, with exchange at Farmerville; will use two standard copper wires, two iron wires and cedar poles in construction of long-distance lines.

TEXTILE MILLS

Miss., Piquette.—Silk.—Company will be organized with \$100,000 capital stock to cultivate silkworms and manufacture silk; Nath Joseph, president; Elias Salk, vice-president; Wm. A. Stockstill, secretary.

N. C., Lenoir.—Cotton.—Moore Cotton Mill Co. will issue \$35,000 preferred stock and install about 2000 additional spindles, making a total of 5376 spindles, and increase production three-eighths; expects to increase capital stock to \$150,000, with \$100,000 common stock.

S. C., Greenville.—Cotton Cloth.—F. W. Poe Manufacturing Co. will hold directors' meeting on October 11 to consider increasing capital stock from \$500,000 to \$1,000,000; now has 61,312 ring spindles, 1520 looms, etc.

Tenn., Newport.—Cotton Yarns.—Clifton Cotton Mills chartered with \$25,000 capital stock by B. W. Hooper, L. S. Smith, J. R. Stokely and others; acquires established plant of 250 ring spindles, 544 twister spindles, etc.

WATER-WORKS

Ala., Hartselle.—City water-works (\$28,000 bond issue recently noted) will include construction of 40x60-foot brick and cement reservoir of 50,000 gallons capacity; also installation of boilers, pump and engines; date of opening bids not set; plans by Xavier A.

Kramer, Magnolia, Miss. (See "Machinery Wanted.")

Ark., Searcy.—City awarded contract to D. C. Brooks & Sons, Kansas City, Mo., to construct water-works; estimated cost \$50,000. (Recently mentioned.)

Fla., Clearwater.—City awarded contract to Cameron & Barkley Company, Tampa, Fla., for pumping equipment, consisting of two 25-horse-power Foss special electric engines direct connected to two 300-gallon-per-minute Ramsey triplex pumps. (Previously noted.)

Fla., Fort Myers.—City voted issuance of \$15,000 of bonds for construction of water-works. Address The Mayor. (Recently mentioned.)

Fla., Jacksonville.—Board of Bond Trustees has authorized readvertisement for bids for construction of proposed 3,000,000-gallon reservoir; certified check for \$1000 to accompany each proposal.

Fla., St. Petersburg.—City voted issuance of \$10,000 of bonds for improvements to water-works and purchase of water-front. Address The Mayor. (Recently mentioned.)

Md., Baltimore.—Board of Awards awarded contract to Thomas C. Bassor Company, 28 Light St., Baltimore, to construct pipeline system at Bayview Asylum. (Recently mentioned.)

Md., Cumberland.—City Commission has engaged James H. Fuertes of New York as consulting engineer in connection with construction of water-works; Legislature has authorized \$500,000 bond issue. (Recently mentioned.)

Md., Baltimore.—Board of Awards awarded contract to Thomas C. Bassor Company, 28 Light St., Baltimore, at \$20,358 to construct pipeline system at Bayview Asylum. (Recently mentioned.)

Mo., Kansas City.—Fire and Water Commissioners have decided on site for proposed intake for water-works at Quindaro, Kans.; intake will be of solid concrete, have three separate compartments, and cost, it is estimated, \$100,000; excavation will be 30 feet below river bed; old intake will be retained; plans and specifications are being prepared and bids will soon be invited; to protect new intake, bids will also soon be invited for construction of about one mile of revetment to cost about \$100,000; new intake will complete duplication of water-works facilities for supplying distributing system.

N. C., Winston-Salem.—L. B. Brickenstein of Winston-Salem has contract to construct water-works system in Crafton Heights.

Okla., Alva.—City contemplates construction of steel tower and laying 5000 feet of four and eight-inch water mains; G. W. McNeeley, Mayor.

Okla., Britton.—City will vote on issuance of \$5,000 of bonds for construction of water-works. Address The Mayor.

Okla., Haskell.—City will construct water-works; will require 12,800 feet of six-inch cast-iron pipe; 17,200 feet of four-inch pipe; 25 fire hydrants, two pumps, boiler, galvanized iron pump-house, steel tower and tank, etc.; bids will be opened September 22; James T. Gates, engineer, Wagoner, Okla.; E. A. Riley, Town Clerk. (See "Machinery Wanted.")

S. C., Fort Mill.—Town Council is considering construction of water-works. Address Town Clerk.

Tex., Caldwell.—City contemplates issuance of \$5000 of bonds for construction of steel standpipe. Address The Mayor.

Tex., Comfort.—Stevens & Stahlman will construct steel tower 30 feet high with 10,000-gallon water tank, pumping apparatus, etc.

Tex., Dalworth, P. O. Grand Prairie.—Dalworth Realty & Improvement Co., L. H. Thompson, general manager, is proceeding with construction of water-works system recently mentioned; source of supply, artesian well; has contracted for 100,000-gallon tank 125 feet high; office in Dallas, Tex., at 296 Commerce St.; Eugene Couch of Dallas is engineer.

Tex., Dallas.—City will lay 30-inch main on portions of Sycamore, Fitzhugh and Live Oak Sts., and 36-inch main on another portion of Live Oak St.; also on right of way of pipe line to White Rock pumping station; bids will be received until September 12; J. B. Winslett, City Secretary. (See "Machinery Wanted.")

Tex., Vernon.—City voted issuance of bonds for construction of water-works. Address The Mayor.

W. Va., Keyser.—City awarded contract to W. A. Liller, 50-54 Mineral St., Keyser, at about \$25,000 to construct concrete core dam, with capacity of 30,000,000 gallons of water;

dam will enclose lake of 10 acres. (Recently mentioned.)

W. Va., Keyser.—City awarded contract to W. A. Liller, 54 Mineral St. (recently noted as lowest bidder), for construction of concrete core dam; capacity 32,000,000 gallons; amount of ground covered, 12 acres; construction will begin spring of 1911; approximate cost \$25,000. (See "Machinery, etc., Wanted.")

W. Va., Parkersburg.—City has plans by A. Gelsler, Dayton, O., and Frank L. Gray, Providence, R. I., for pumping station; will install pumping engines, boilers and pump well; bids opened September 14 for construction and machinery; Frank Good, auditor; estimated cost \$100,000. (Recently mentioned. See "Machinery Wanted.")

W. Va., Wheeling.—Board of Control (C. C. Schmidt, C. H. Brues and T. M. Haskins), Wheeling, W. Va., will receive bids until September 14 for construction at Wheeling water-works pumping station of pump-house, tunnel, foundations for outside crane railway, valves and 36-inch discharge main; certified check, \$500; copies of plans and specifications may be obtained from Board of Control or J. Richard Kommer, consulting engineer, 1116 House Bldg., Pittsburg, Pa.

WOODWORKING PLANTS

Ala., Florence.—Columns.—Florence Column & Manufacturing Co. will probably rebuild plant recently reported burned at loss of \$19,000.

Ala., Florence.—Florence Column & Manufacturing Co., H. M. Moore, president, contemplates rebuilding of plant recently noted burned. (See "Machinery Wanted.")

Ga., Jackson.—Furniture.—City Furniture Co. incorporated with \$6500 by E. D. Tolleson and T. M. Furlow.

Tenn., Chattanooga.—Boxes.—Acme Box Co. will soon begin erection of proposed box plant in South Chattanooga; will, it is reported, expend \$50,000 in erection of new buildings.

Tenn., Johnson City.—Barrels.—R. F. Swift, Nashville, Tenn., will establish barrel factory.

Va., Richmond.—Furniture.—J. F. Biggs will establish \$20,000 furniture factory.

W. Va., Keyser.—Baskets, etc.—J. B. Steel, Coudersport, Pa., is reported considering establishment of plant for manufacturing baskets, barrels, etc.

BURNED

Ala., Birmingham.—Jemison Real Estate & Insurance Co.'s building, occupied by Commercial State Bank and others; loss \$8000 to \$10,000.

Ala., Castleberry.—J. A. & A. P. Smith's turpentine stills; loss \$1000.

Ala., Decatur.—Mack Lynne's residence; loss \$8000.

Ark., Brinkley.—Brinkley Academy.

Ark., De Queen.—Leader Building, owned by Blerks Lumber Co.; loss \$5000.

Ark., Grady.—Dante Bros.' store; building owned by Mrs. Jeff Harding; loss \$5000.

Ark., Helena.—Ralph Chew's building, loss \$20,000; Mrs. Annie Hicks' building, loss \$10,000; J. O. Newby's building, loss \$15,000.

Ark., Marked Tree.—Ferguson & Wheeler Handle Co.'s plant, leased and operated by Turner & Hirschmann; estimated loss \$50,000; former company's main offices in Poplar Bluff, Mo.

Fla., Pensacola.—Coy Turpentine Cup Manufacturing Co.'s plant.

Ga., Atlanta.—Thos. H. Pitt's garage at 18 Moreland Ave.; V. A. Curving's residence at 167 Alva Ave.; loss \$5000.

Ga., Augusta.—Augusta Knitting Mill, owned by Mr. Moody, Barnwell, S. C.; loss \$2000.

Ga., Macon.—Arthur F. Jones' residence.

Ky., Somerset.—Newtonian Hotel; T. Grimstead's store; loss \$7000.

La., Trenton.—West Monroe Lumber Co.'s dryklln.

Md., Frederick.—Martin C. Kafauver's barn; estimated loss \$10,000.

Md., Glyndon.—Aged People's Outing Association's cottage, Temperance Tabernacle, etc.; estimated loss \$15,000.

Miss., Ackerman.—W. H. Durham's residence.

Mo., Kansas City.—Crescent Cereal Mills, owned by Commerce Trust Co.; loss \$10,000.

Okla., Tulsa.—Midland Elevator Co.'s warehouse.

S. C., Marietta.—J. C. Jarrard & Bros.' store; loss \$4000.

Tenn., Martin.—Martin Bottling Works; loss \$2000.

Tex., Burrow.—J. N. Miller's cotton gin; loss \$5000.

Tex., El Paso.—United Woolen Mills Co.'s store; store owned by Howard, Franklin & O'Farrell of St. Louis, Mo.

Tex., Gonzales.—Klefer & Jones' dwelling; loss \$3000.

Tex., Greenville.—Mrs. Sallie Terhune's residence, loss \$12,500; S. G. Duff's residence, loss \$4000.

Tex., Mart.—Mart Cotton Oil Co.'s fire loss was \$60,000. (Recently incorrectly noted.)

Tex., Navasota.—S. J. Walker's warehouse; estimated loss \$11,000.

Tex., San Marcos.—Farmers' Union Gin Co.'s cotton gin; loss \$12,000.

Tex., Wallis.—Walzel & Klescka's cotton gin; loss \$9000.

W. Va., Wheeling.—W. P. Burruss & Co.'s warehouse; estimated loss \$1500.

DAMAGED BY STORM

N. C., Hendersonville.—Hendersonville Light & Power Co.'s plant.

WRECKED BY EXPLOSION

Ark., Warren.—Arkansas Lumber Co.'s plant; estimated loss \$90,000.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Mo., Kansas City.—F. T. Bolton purchased apartment-houses at 1308-10 East 11th St., and will expend \$5000 for improvements.

Mo., St. Louis.—Frank E. Banish will erect two single flat buildings.

Mo., St. Louis.—Jacob and Frida Weller will erect single-flat building.

Mo., St. Louis.—Carl E. Lund will erect single apartment-house.

Mo., St. Louis.—Harry B. White will erect double apartment-house.

Okla., Oklahoma City.—J. Virba will erect apartment-house; two stories; frame; cost \$4000.

Va., Norfolk.—Thomas S. Southgate will remodel dwellings into stores and apartments. (See "Stores.")

Tenn., Memphis.—Company is being organized by S. F. McDonald and others to erect apartment-house and hotel. (See "Hotels.")

ASSOCIATION AND FRATERNAL

Ala., Brighton, P. O. Bessemer.—Ancient Free and Accepted Masons and Independent Order of Odd Fellows have plans prepared by Beems & Skinner, Bessemer, for proposed Masonic and Odd Fellows' Hall; two stories; brick; 44x80 feet; Jack Pegues, secretary of committee.

Ky., Princeton.—Princeton Lodge No. 50, Independent Order of Odd Fellows, will erect hall; two stories; brick.

Md., Frederick.—Pythian Castle Association, Reno S. Harp, president, has not selected architect to prepare plans for association building recently noted; 38x100 feet, with L 35x35 feet; three stories; heating and lighting not decided; cost \$15,000; construction will not begin until April, 1911.

Md., Havre de Grace.—Bids addressed to W. J. Arthur, chairman, will be received until September 10 for improvements to Odd Fellows' Bldg., consisting of two-story brick annex 17 feet 6 inches by 42 feet, together with plastering, painting, plumbing, heating and lighting and alterations to old building; plans and specifications at office of J. Wesley Carver, Masonic Temple, Havre de Grace.

Tex., Del Rio.—Del Rio Lodge, No. 837, Benevolent and Protective Order of Elks, plans erection of three-story lodge building.

Va., Portsmouth.—Young Men's Christian Association will expend \$5000 to \$6000 for remodeling interior of building; C. Burrn Jones, general secretary.

BANK AND OFFICE BUILDINGS

Ala., Double Springs.—Tennessee Valley Bank, S. S. Broadus, president, Decatur, Ala., will, it is reported, erect bank building.

Fla., Jacksonville.—J. G. Boyd, J. J. Heard and E. H. Tomlinson will, it is reported, erect 15-story office building to cost \$300,000; site is 61x105 feet.

Ga., Atlanta.—W. A. Albright (recently noted to erect office building) states he will not have possession until December 1, 1911; details yet to be worked out, but present plans

contemplate 15-story fireproof building costing \$200,000.

Ga., Macon.—Henry Jones and Ed. Welch-selbaum purchased building at Mulberry and Second Sts. for \$70,000, which, it is reported, will be improved and converted into office building.

N. C., Wilmington.—Wilmington Savings & Trust Co. will open bids about October 1 for erection of building recently noted; exclusively banking office; fireproof, brick and reinforced-concrete construction; 32 feet by 100 feet 6 inches; height 46 feet; cost \$40,000; hot-water heat, cost not decided; electric lighting; plans by J. F. Leitner, Wilmington, N. C.

Okla., Heavener.—Bank of Heavener, Roy A. Cooper, cashier, will erect two-story bank building.

S. C., Pelion.—Bank of Pelion, L. W. Wise, president, will erect bank building; plans not yet determined. (See "Machinery Wanted.")

Tenn., Memphis.—Lydia H. Pinkham Company, 216 N. Charles St., Baltimore, Md., will erect office building at Monroe Ave. and Main St.

Tex., Vernon.—Farmers' State Bank (W. H. Evans and others) will erect bank building.

CHURCHES

Ala., Cullman.—Baptist congregation contemplates erection of \$20,000 edifice. Address The Pastor, Baptist Church.

Ark., Little Rock.—Second Church of Christ, Scientist, will erect edifice. Address Samuel W. Dix.

Fla., St. Augustine.—First Methodist Episcopal Church South, W. C. Middleton, secretary building committee, has plans by W. B. Talley, Jacksonville, Fla., for edifice recently noted; 65x75 feet; concrete brick; cost \$15,000; foundation for entire building to be laid; \$6000 Sunday-school building only to be erected at present; will employ foreman to superintend construction.

Ky., Paducah.—Tenth Street Christian Church, Rev. G. D. Wyatt, pastor, will erect edifice; seating capacity about 50; estimated cost \$15,000.

La., Covington.—Gibson Street M. E. Church South, De John T. Sawyer, pastor, will not erect new edifice at present. (Recently incorrectly noted.)

Md., Baltimore.—John Cowan, 106 West Madison St., Baltimore, is lowest bidder for erection of edifice for Boundary Avenue Methodist Episcopal Church, East 42d St. North, near York Rd.; brick and stone; two stories and basement; 63x55 feet; hot-water heating; electric lighting; estimated cost \$30,000. (Recently mentioned.)

Md., Beavutue.—Catholic Church has plans by Leon Dessez, 121 F St. N. W., Washington, for edifice; frame; pebble-dash finish; 2 feet long; 42 feet frontage; tower 40 feet high; 60 pews.

Miss., Meridian.—First Presbyterian congregation will erect edifice to cost \$40,000. Address The Pastor, First Presbyterian Church.

Mo., Webb City.—First Methodist Episcopal Church, Rev. Dean C. Dutton, pastor, will erect edifice.

N. C., Greensboro.—Lutheran congregation contemplates erecting edifice. Address The Pastor, Lutheran Church.

Tenn., Nashville.—Lawrence Avenue Church of Christ secured permit to erect proposed edifice; brick; cost \$3000. Address The Pastor, Lawrence Avenue Church of Christ.

Tex., Hillsboro.—Episcopal congregation will erect brick edifice to cost \$7200. Address The Pastor, Episcopal Church.

Tex., Fort Worth.—Central Methodist Church, Bellevue and Lipscomb Sts., has begun erection of proposed edifice; brick; stone trimmings; seating capacity 1500; estimated cost \$75,000; W. H. Smith, J. W. Wright and others compose building committee.

Tex., Houston.—C. D. Hill & Co., First National Bank Bldg., Houston, will invite new bids until noon September 12 for erection of proposed edifice.

Tex., Waco.—Christian Church, Rev. E. L. Crystal, pastor, purchased site 63x165 feet on which to erect edifice.

Va., Richmond.—Westminster Presbyterian Church, Rev. James Y. Fair, pastor, contemplates erecting edifice.

CITY AND COUNTY

Fla., Orlando.—Barn and Shed.—M. O. Overstreet, chairman Finance Committee, will expend \$2000 to erect barn and shed recently noted; 60x100 feet; corrugated iron;

plans by Murry S. King, Orlando; bids opened September 10.

Fla., Tampa.—Fire Station.—City is having plans prepared by Bonfoey & Elliott, Tampa, for proposed No. 3 fire station; cost \$10,000.

Fla., St. Petersburg.—City voted \$7500 of bonds for fire station, jail and police-alarm system. Address The Mayor. (Previously noted.)

Ga., Macon.—Exhibit Hall.—Bridges Smith, Clerk of Council, will soon award contract for erection of proposed exhibit hall at Central City Park; completion by October 20.

La., New Orleans.—Robert B. Ward, New Orleans, is lowest bidder at \$10,972 for erection of two-story engine-house at Carrollton Ave., Louisiana and Moss Sts. (Recently mentioned.)

Md., Baltimore.—Public Baths.—Walters Free Bath Commission has plans by Theodore W. Pietsch, 1001 American Bldg., Baltimore, for bathhouse on West St. recently noted; 40x55 feet; iron and stone; cost \$30,000; bids opened September 6; heating contract let separately.

Md., Havre de Grace.—Hospital.—City plans erection of hospital; J. Lee Hopkins, Isaac Hecht and Lee M. Moore, committee.

Mo., Kansas City.—Fire Station.—Kansas City Stock Yards Co. will erect building to be equipped and used by city for fire station.

Okla., Durant.—Bryan county will vote November 8 on \$100,000 bond issue to erect courthouse and jail. Address County Commissioners. (Recently mentioned.)

Tex., Wichita Falls.—Jail.—Wichita county, M. F. Yeager, Judge, receives bids until September 8 for erection of jail; 32x40 feet; three stories; ordinary construction; cost, including metallic equipment, \$20,000; plans by Southern Structural Steel Co., San Antonio, Tex.

Tex., Sherman.—H. R. Wallace, Auditor, Sherman, will receive bids until September 12 for erection of two-story and basement brick building on County Farm.

Va., Richmond.—Engine-house.—City is having plans prepared by Carneal & Johnson, Richmond, for engine-house at 19th and Bainbridge Sts.; brick; cost \$11,000. (Recently mentioned.)

W. Va., Moundsville.—Municipal Building.—City Council is having plans prepared by Herman Hess, Moundsville, for proposed municipal building.

COURTHOUSES

Ga., Griffin.—Spalding county contemplates opening bids about February 1 for erection of proposed courthouse; plans not selected; fireproof structure; cost \$75,000; steam heat; electric lighting; passenger elevator. Address R. H. Drake. (Bond issue of \$80,000 recently noted defeated.)

Okla., Durant.—Bryan county will vote November 8 on \$100,000 bond issue to erect courthouse and jail. Address County Commissioners. (Recently mentioned.)

W. Va., Elizabeth.—Wirt County Commissioners have plans by B. F. Smith, 504 14th St. N. W., Washington, D. C., for courthouse and jail building previously noted; cost \$50,000. Address architect.

DWELLINGS

Ala., Fort Payne.—James Burkhart will erect residence.

Ala., New Decatur.—E. W. Godbey will erect \$15,000 residence.

D. C., Washington.—David N. Rust, Jr., 1900 H St. N. W., has plans by McNeill & McNeill, 23-25 Colorado Bldg., Washington, for residence in Chevy Chase Terrace. (Previously noted.)

D. C., Washington.—H. R. Howenstrin Company, 1311 F St. N. W., has plans by W. E. Howser, 614 G St. N. E., Washington, for three two-story brick dwellings at 1009-13 7th St. N. E. to cost \$4500 and three two-story brick dwellings at 1022-26 8th St. S. E. to cost \$7500; construction by owner.

Fla., Jacksonville.—Charles E. Terry has plans by Mellen C. Greeley, Jacksonville, for residence; two stories; eight rooms.

Fla., Jacksonville.—Sam Kaufman will erect 20 cottages.

Fla., Tampa.—A. D. Whaley is having plans prepared by Bonfoey & Elliott, Tampa, for \$8000 dwelling.

Ga., Augusta.—J. A. Sims, Richland, Ga., will erect residence.

Ga., Macon.—Arthur F. Jones will rebuild residence reported burned.

Ga., Savannah.—J. T. Collins will erect residence.

Ky., Louisville.—Mrs. G. D. Whayne has plans by D. N. Murphy & Bro., Louisville,

for residence; two stories; nine rooms; stucco; cost \$9000.

La., New Orleans.—Arthur McGuirk will erect residence; white stone; French Renaissance style; cost \$45,000.

La., New Orleans.—S. L. Mansell, Jr., will erect \$10,000 residence.

La., New Orleans.—J. L. Wimberly of Belmont, Miss., will erect residence.

La., New Orleans.—A. Freed will erect two single two-story dwellings; cost \$5800.

La., New Orleans.—N. Gleber will erect three double cottages; cost \$5700.

Md., Baltimore.—Forest Park Co., Maryland Telephone Bldg., is having plans prepared by Herbert C. Aiken, 223 St. Paul St., Baltimore, for dwelling at Liberty Heights and Berwyn Aves.; 40x50 feet; two and a half stories; frame and stucco; concrete foundation; slate roofing; electric lights; hot-water heat; cost \$11,000.

Miss., Biloxi.—W. T. Bolton contemplates erection of residence.

Mo., Kansas City.—J. R. Vansant will expend \$9000 to erect dwelling recently noted; 33x36 feet; shingle; hot-water heat; plans and construction by owner. (See "Machinery Wanted.")

Mo., St. Louis.—Frank L. Dittmeier will erect two residences.

Mo., St. Louis.—Edwin Grove will erect residence.

N. C., Charlotte.—J. C. Mills of Rutherfordton, N. C., contemplates erection of residence in Little Switzerland.

N. C., Charlotte.—C. M. Carson, Thos. J. Davis, W. A. Avant, H. J. Zehm, Edward Scholtz, J. L. Delaney and Wade H. Harris contemplate erection of residences in Little Switzerland.

N. C., Charlotte.—James L. Webb of Shelby, N. C., contemplates erection of residence in Little Switzerland.

N. C., Winston-Salem.—F. D. Caldwell will erect residence.

Tenn., Chattanooga.—H. A. Sufferin will erect two-story brick dwelling.

Tenn., Memphis.—St. Patrick's Church will erect parsonage; two stories; brick; steam heat; electric lights. Address The Pastor, St. Patrick's Church.

Va., Norfolk.—A. S. Pope will erect \$4000 residence.

Va., Richmond.—John W. Moore will erect two-story brick dwelling; cost \$6000.

Va., Richmond.—O. J. Davis will erect two detached brick dwellings; cost \$5000.

Va., Richmond.—Otway Allen will receive bids until September 10 for erection of residence.

Va., Richmond.—Louis W. Pizzini has plans by Scarborough & Howell, Richmond, for residence; 45x55 feet.

Va., Richmond.—J. W. Moore will erect brick residence.

W. Va., Bluefield.—H. L. Lord will erect 30 dwellings.

W. Va., White Sulphur Springs.—Chesapeake & Ohio Railway Co. will, it is reported, erect 200 cottages. (See "Hotels.")

GOVERNMENT AND STATE

Ky., Louisville.—Stable and Storehouse.—U. S. Engineer Office, Louisville, Ky. Proposals for combined stable and storehouse at Louisville and Portland Canal will be received until September 30; information on application; Lytle Brown, Captain, Engineers.

Va., Fort Monroe.—Officers' Quarters.—R. H. Richardson & Son, Hampton, Va., lowest bidders at \$16,058 for construction of two sets of field officers' quarters; William G. Morris, Phoebus, Va., for plumbing, and Samuel J. Watson, Jr., Hampton, Va., for electrical work; Capt. Ernest R. Tilton, constructing quartermaster.

W. Va., Wheeling.—Lockkeepers' Houses.—U. S. Engineer Office, Wheeling, W. Va. Proposals for building two two-story eight-room lockkeepers' houses at dam No. 11, Ohio River, will be received until 11 A. M. September 29; information on application; F. W. Alstaetter, Captain, Engineers.

HOTELS

Fla., Jacksonville.—Charles R. Bisbee is having plans prepared by J. W. Hawkins, Jacksonville, for proposed European hotel; 10 stories; 200 guestrooms; brick and white sandstone construction; electric lights; cost \$250,000.

Fla., Pensacola.—William F. Green of Titusville, Fla., and A. Reid of Columbus, Ga., have taken over Merchants' Hotel, and will expend \$25,000 to remodel.

Md., Silver Springs.—Silver Springs Hotel Co. (recently reported incorporated), R. H. McNeill, vice-president, 923-25 Colorado Bldg., Washington, D. C., will erect hotel; three stories; concrete; fireproof; 200 rooms.

S. C., Charleston.—Charleston Hotel will make improvements, including 40 additional baths, additional rooms, redecorated, etc.

Tenn., Memphis.—Company is being organized by S. F. McDonald, Robert R. Prest and others to erect 150-room brick hotel, also apartment-house; cost \$150,000 to \$200,000.

Tex., El Paso.—Sheldon Hotel Co. has plans by Trost & Trost, El Paso, for remodeling Sheldon Hotel; cost \$30,000.

Tex., Weatherford.—City will erect hotel; three stories; 75x100 feet; 45 sleeping-rooms; cost \$20,000; Joel W. Hicks, Mayor.

W. Va., White Sulphur Springs.—Chesapeake & Ohio Railway Co., F. L. Cabell, chief engineer, Richmond, Va., will, it is reported, purchase Pence Springs, remodel hotel, erect hotel and 200 additional cottages.

MISCELLANEOUS STRUCTURES

Ark., Hot Springs.—Bathhouse.—Maurice Bath Co. organized with \$100,000 capital stock to erect bathhouse; W. G. Maurice, president; M. J. Henderson, vice-president; A. J. Kempner, secretary; Dave Burgauer, treasurer.

Md., Baltimore.—Clubhouse.—Otto G. Simonson, American Bldg., Baltimore, will receive new bids for improvements to be made by Walbrook Athletic Club, Walbrook Ave. and 16th St.; these will include billiard-room, 2½ stories, of frame, and assembly hall, 40x66 feet, each to be finished in hardwood; also library, 16x21 feet, and frame grandstand; estimated cost \$25,000.

N. C., Transylvania County.—Clubhouse.—Coxe estate, Asheville, N. C., contemplates erecting clubhouse. (See "Land Developments.")

Tenn., Columbia.—Hospital.—King's Daughters will erect hospital to cost from \$30,000 to \$40,000; plans not determined. Otey J. Porter may be addressed.

Tex., Arlington.—Home.—Grand Royal Arch Chapter, Ancient Free and Accepted Masons, has plans by M. L. Waller, Fort Worth, Tex., for proposed home for aged Masons; three stories and basement; 70 rooms; fireproof construction; reinforced concrete; steam heat; electric lighting; cost \$40,000; J. L. Johnson, superintendent; bids opened September 2.

Tex., Marshall.—Hospital.—Kahn Memorial Hospital, Dr. James Rosborough, president, is arranging for erection of proposed hospital.

RAILWAY STATIONS

Ala., Mobile.—Mobile Terminal Railway Co., John T. Cochrane, president, incorporated with \$500,000 capital stock; proposes to erect passenger station, build and maintain piers, docks, warehouses, etc. (See "Miscellaneous Construction.")

Md., Frostburg.—Western Maryland Railway, H. R. Pratt, chief engineer, Baltimore, Md., contemplates, it is reported, erection of depot.

S. C., Chester.—Southern Railway, D. W. Lum, chief engineer, Washington, D. C.; Carolina & Northwestern Railway, L. T. Nichols, general manager, Chester, and Lancaster & Chester Railway, P. W. Hardin, supervisor bridges and buildings, Lancaster, S. C., have plans for depot; two-story office section in center; waiting-rooms on sides.

Tex., El Paso.—El Paso & Southwestern Railroad of Texas, H. J. Simmons, general manager, will receive bids until October 1 for enlarging freighthouse; plans and specifications on file in office of engineer maintenance of way, Southwestern Bldg., El Paso, copies of which may be had on application; bids to be addressed to said engineer and be accompanied by certified check for 10 per cent. of bid.

Tex., Port Arthur.—Southern Pacific Railway, A. V. Kellogg, engineer maintenance of way, Houston, Tex., has plans completed, it is reported, for passenger station to cost \$18,000.

Tex., Port Arthur.—Kansas City Southern Railway, A. F. Rust, resident engineer, Kansas City, Mo., will, it is reported, remodel depot at cost of \$7500.

Va., Portsmouth.—Norfolk & Western Railway, C. H. Churchill, chief engineer, Roanoke, Va., will, it is reported, enlarge and improve passenger station.

SCHOOLS

Ala., Talladega.—Synod of Alabama will erect college building recently noted; plans not yet selected; cost about \$40,000; F. B. Webb, 170 Coffee St., pastor of First Presbyterian Church of Talladega, is member board of trustees.

Ark., Lake Village.—Allen Beadel, secretary of School Board, will receive bids until September 10 for erection of two-story frame school; certified check for \$200; plans by Theo. M. Sanders, 709-11 Southern Trust Bldg., Little Rock, Ark.

Ark., Mena.—Mena Hendrix College, W. D. Sharp, president (recently noted to rebuild burned structure) contemplates erection of \$25,000 building next year.

Ark., Brinkley.—Brinkley Academy will rebuild structure reported burned.

Ark., Texarkana.—City will erect proposed \$100,000 high-school building at College Hill; George W. Reid, superintendent of public schools. (Recently noted.)

Ga., Collins.—City has plans by W. B. Camp, Jacksonville, Fla., for school building recently noted; 55x78 feet; fireproof construction; stoves; cost \$10,000; bids opened September 10.

Ga., Crawford.—City will vote September 12 on \$5000 bond issue for school improvements; J. A. Roland, Mayor.

Ga., Grantville.—Coveta county will vote September 13 on \$12,000 bond issue for school improvements. Address County Commissioners.

Ky., Catlettsburg.—C. E. Silcott, secretary Board of Education, will receive bids until September 20 for erection of any part or whole of high-school building; certified check for 2 per cent. amount of bid; plans and specifications at office of J. R. Gleske, Ceredo, W. Va., or of secretary Board of Education, Catlettsburg.

La., Brusly.—City voted special tax for erection of school. Address Town Council.

La., Covington.—Work will be resumed on unfinished school building; 12 rooms, assembly hall, etc.; brick; frame interior; amount expended on finished work \$20,000; amount yet to be expended about \$20,000; H. R. McCullough, Superintendent of Schools.

La., New Orleans.—Mater Dolorosa Church, Rev. Father Prime, rector, is planning erection of school in Carrollton; cost \$3500.

N. C., Asheville.—Asheville School for Girls, W. T. Weaver, president, contemplates erection of school.

N. C., Greensboro.—W. C. Jackson, secretary Board of Education, receives plans and specifications until September 15 for Central City school building; cost \$25,000, exclusive of heat.

Okla., Frederick.—Board of Education, W. T. Dodson, clerk, High School Bldg., will receive bids until September 10 for erection of brick ward school; certified check for \$100; plans and specifications at office of architect, Room 10, Stinson & Mounts Bldg., Frederick; J. L. Davis, president of board.

Okla., Medford.—Medford School District Trustees plan erection of \$40,000 school.

Tenn., Murfreesboro.—State Board of Education, Nashville, Tenn., rejected bids for erection of normal school. (See "Schools, Contracts Awarded, Tenn., Nashville.")

Tenn., Memphis.—State Board of Education, Nashville, Tenn., rejected bids for erection of normal school. (See "Schools, Contracts Awarded, Tenn., Nashville.")

Tex., Port O'Connor.—Board of Trustees, District No. 4, have plans by Hull & Praeger, Victoria, Tex., for four-room school building recently noted; frame; stoves; cost \$4000; date of opening bids not set; H. G. Hertel may be addressed.

Tex., Little River.—Little River District School Trustees will erect concrete and steel school; cost \$4000.

Tex., Pendleton.—District School Trustees will erect brick and concrete school; cost \$10,000.

Tex., Seadrift.—Calhoun County Commissioners, Port Lavaca, Tex., are having plans prepared by Hull & Praeger, Victoria, Tex., for \$3000 school.

Va., Madison.—Elon District School Board will erect \$4000 high-school building at Madison Heights.

W. Va., Parkersburg.—Board of Education, Geo. D. Heaton, secretary, will receive bids until September 9 (change of date) for erection of school at 7th St. and Park Ave.; bids may be upon whole or any part of work and submitted on blanks furnished by architect, and must be sealed and marked with name of bidders and class of work bid upon; certified check for \$500, payable to R. J. A. Borman, president; plans and specifications at office of William Howe Patton and D. W. Daley, Room 702 Union Trust Bldg., Parkersburg. (Recently mentioned.)

STORES

Ark., DeVal's Bluff.—W. J. Wilkin & Co. will erect store building; 60x82 feet; brick construction.

D. C., Washington.—E. B. Behrends, 1214 E St. N. W., awarded contract to E. M. Van Ness, Evans Bldg., Washington, for remodeling building for store and apartments; 32x80 feet; brick; cost \$5750; hot-air heat; plans by Speiden & Speiden, 1403 New York Ave. N. W., Washington. (Recently noted.)

Fla., Bartow.—Charles E. Earnest Mercantile Co. will erect store building; brick construction; one story.

Fla., St. Petersburg.—A. Norwood will erect business building.

Ga., Atlanta.—Progressive Realty Co. will expend \$4000 for improvements to building at Houston & North Pryor Sts.

Ga., Cuthbert.—D. B. Teabaut is proceeding with erection of store building recently noted; ordinary construction; cost \$3000.

Ga., Tifton.—Golden Hardware Co. will erect business building.

La., New Orleans.—A. Di Trappini will expend \$4000 for improvements to building.

Md., Baltimore.—Christopher Wattenscheldt purchased site 97x100 feet on Pratt St., near Smallwood St., and contemplates erection of stores; semi-fireproof construction; cost \$12,000; architect not selected; construction in about one year.

Mo., Kansas City.—Shepherd & Farrar, architects, 208 Minor Bldg., Kansas City, may be addressed relative to \$30,000 building recently noted to be erected by Guyton-Harrington Mule Co.

Mo., St. Louis.—W. S. Drozda will erect row of stores; two stories; frontage 204 feet.

Tex., Dallas.—Titcher-Goettinger Company, Wilson Bldg., will erect department-store building; 12 stories and basement; steel construction; 50x100 feet; traction elevators; electric dumbwaiters; wrapping stands in all departments equipped with pneumatic cash carriers; spiral conveyors for assembling merchandise at delivery departments; dust chutes leading from 12th floor to basement; press in basement for baling waste paper; cost not announced.

Tex., Dallas.—Charles F. Bolanz and associates are having plans prepared by C. D. Hill & Co., Dallas, for store; 61x90 feet; three stories and basement; ordinary or mill construction; 8x18-foot electric elevator costing \$1500; estimated cost of building, \$30,000; Alexander Watson of Dallas, probable contractor. (Recently mentioned.)

Va., Norfolk.—Thomas S. Southgate is having plans prepared by Russell Edward Mitchell, Norfolk, for remodeling residences at 281-285 Granby St. into stores and apartments.

W. Va., Weston.—Mrs. E. A. Bennett will erect store and office building. (See "Bank and Office Buildings.")

THEATERS

Ga., Atlanta.—Mion Bros. will erect Alamo Theater; cost \$10,000.

Ga., Macon.—Victoria Amusement Co. is proceeding with remodeling of two-story building as moving picture theater; 25x130 feet; ordinary construction; Edward A. Horne, 453 Cherry St., superintendent of construction. (Recently noted. See "Machinery Wanted.")

La., Shreveport.—Saenger Bros. are having plans prepared by Clarence King, Shreveport, for theater and billiard hall.

La., Opelousas.—C. J. Stewart of Baton Rouge, La., is lowest bidder at \$26,000 for erection of opera-house for Jacobs News Depot. (Recently mentioned.)

WAREHOUSES

Okla., Oklahoma City.—Acme Milling Co. will rebuild warehouse and barn recently noted burned; warehouse to be 36x140 feet; barn 25x36 feet; iron construction; cost \$2500; contract not awarded.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

D. C., Washington.—E. B. Behrends, 1214 K St. N. W., awarded contract to E. M. Van Ness, Evans Building, Washington, for remodeling building for stores and apartments. (See "Stores.")

ASSOCIATION AND FRATERNAL

Tenn., Nashville.—Ancient, Free and Accepted Masons awarded contracts for erection of temple as follows: Nashville Bridge Co., iron and steel; J. S. Minton, tin and galvanized iron work; S. J. Underwood, painting; Bush Building Co., brick work;

Phillip-Carey Company, roofing; Foster-Creighton-Gould Company in charge of entire work; auditorium with seating capacity of 1,200; cost \$30,000. (Recently noted.)

BANK AND OFFICE BUILDINGS

La., Erath.—Bank of Erath, V. L. Caldwell, president, awarded contract for erection of bank building recently noted; 27x55 feet; ordinary construction; plans by V. L. Caldwell, Erath.

S. C., Greenville.—Mrs. E. M. Cleveland, Marietta, S. C., has plans by and awarded contract to F. H. & G. G. Cunningham, Greenville, for erection of store and office building; fireproof; electric lights; 100x100 feet; cost \$15,000 to \$18,000. (Recently noted.)

W. Va., Weston.—Mrs. E. A. Bennett awarded contract for erection of office and business building; three stories; brick.

CHURCHES

Tenn., Chattanooga.—Third Presbyterian Church awarded contract to J. L. Janeway, 811 South Highland Ave., Chattanooga, for erection of edifice previously described; cost \$30,000; contract for brickwork awarded to James Suffer, 12 East Terrace St., Chattanooga, at \$4800.

Tex., Calvert.—Baptist church will expend \$14,000 to erect edifice; 55x76 feet; brick veneer; hot-water heat; electric lighting; plans by Scott & Pierson, Waco, Tex.; contract recently noted awarded to G. W. Sonfield, Dallas, Tex.

Va., Richmond.—Lelgh Street Baptist Church awarded contract to James Fox & Sons of Richmond at about \$16,000 for improvements to edifice, including installation of \$800 organ.

CITY AND COUNTY

Ala., Birmingham.—Fire Station.—City awarded contract to F. H. Connors, Brown-Marx Bldg., Birmingham, for erection of fire station recently noted; 50x75 feet; ordinary construction; cost \$10,000.

Tex., Fort Worth.—County Commissioners awarded contract at \$18,900 to R. H. Thompson, Fort Worth, for erection of women's dormitory and dining hall at poor farm; brick construction; electric lights; steam heat.

DWELLINGS

Ala., Fort Payne.—Professor Wallace awarded contract to Smith Mitchell, Fort Payne, for erection of cottage.

Ala., Gadsden.—Mrs. A. B. Pogue awarded contract to J. F. Edwards and L. E. Lowery, Gadsden, for erection of six-room residence.

D. C., Washington.—William W. Lawrence of National Lead Co. of New York awarded contract to William P. Lipscomb & Co., 1405 F St. N. W., Washington, for erection of residence on Kalorama Rd.; Elizabethan type; frontage, 160 feet; depth, 40 to 80 feet; tapestry brick; stone trimmings; ornamental stone wall; iron gates at entrances; three stories; east and west wings two stories; interior decorations of Caen stone; plans by J. H. de Silbour, Hibbs Bldg., Washington.

Fla., Eastlake.—H. A. Fausett, Ocala, Fla., awarded contract to B. R. McMahon, Ocala, for erection of dwelling recently mentioned; 30x42 feet, with ell 20x30 feet; acetylene gas lighting.

Fla., Tampa.—Mrs. Carl W. Hill awarded contract to Logan Bros., Tampa, for erection of residence; two stories; frame; cost \$5000.

Ga., Columbus.—R. J. Arthur awarded contract to Dudley Lumber Co., Columbus, for erection of proposed \$3000 seven-room residence.

La., Shreveport.—R. B. Cook has plans by Hyde Bros., third floor, Times Bldg., Shreveport, for residence; 40x61 feet; 12 rooms; ordinary construction; cost \$5000; contract awarded to N. Landrum, Shreveport.

Md., Baltimore.—W. G. Henkel, 1021 Light St., awarded contract to J. Charles Kemper, Green Spring Ave. and Pimlico Rd., Baltimore, for erection of cottage at Green Spring Park; two and a half stories; frame; cost \$7500.

Md., Baltimore.—C. H. Slater, 2240 Guilford Ave., awarded contract to John A. Sheridan, 806 North Carrollton Ave., for erection of residence at Roslyn and Piedmont Aves.; two and a half stories; frame; cost \$6000; plans by C. M. Anderson, 324 North Charles St., Baltimore. (Recently noted.)

Tex., Belton.—Jake Westbrook awarded contract to T. H. Birdwell, Belton, for erection of two-story 40x16-foot dwelling recently noted; ordinary construction; cost \$3200. (See "Machinery Wanted.")

Tex., Dallas.—C. E. Hudson awarded con-

tract to Otto Susen, Dallas, for erection of \$8000 dwelling recently noted; location, Highland Park Addition; eight rooms; frame; shingle roof; hot-air heat; plans by Lang & Wittichell, Dallas.

Tex., Houston.—Thos. J. Kennerly awarded contract to F. A. Goldapp, Houston, for erection of residence; two stories; nine rooms; cost \$5000; plans by R. D. Steele, Houston.

Tex., San Antonio.—R. W. Hearne awarded contract to Eugene Davis, San Antonio, for erection of dwelling recently noted; 14 rooms; fireproof construction; hot-water heat; electric wiring; cost \$40,000; plans by Atlee B. Ayres, San Antonio.

Va., Staunton.—F. A. Losley awarded contract to Frank Yount, Staunton, for erection of dwelling; 32x30 feet; five rooms with bath; ordinary construction; hot-water heat; electric lighting; cost \$4000; plans by R. A. Myers, Staunton. (See "Machinery, etc., Wanted.")

Va., Port Norfolk, P. O. Portsmouth.—Rev. I. T. Jacobs awarded contract to N. T. Torbert, Port Norfolk, for erection of residence; 32x42 feet; five and seven-foot porches; frame construction; Latrobe stoves; slate roof; cost \$3500. (Recently noted.)

HOTELS

Va., South Hill.—Midva Realty Association awarded contract to J. D. Anders, 23 Essex Bldg., South Hill, for hotel and store building recently noted; 70x100 feet; three stories; mill construction; hot-water heat; cost \$23,000; plans by Lee & Diehl, Norfolk, Va.

W. Va., Grafton.—John T. McGraw awarded contract to J. J. Walsh & Son, 1525 Maryland Ave., Baltimore, Md., for erection of proposed hotel; stone, brick and concrete with terra-cotta brick trimmings; 85 rooms; cost \$125,000.

MISCELLANEOUS STRUCTURES

Ala., New Decatur.—Business.—Charles H. Austin & Sons awarded contract to W. E. Spain of New Decatur to erect brick business block.

Fla., St. Petersburg.—Chapter-house.—Pinellas League awarded contract to Eureka Stone & Paving Co. of St. Petersburg at \$10,740 to erect chapter-house.

Miss., Greenville.—Fair Buildings.—Delta Fair Association will erect three buildings recently noted; 46x75 feet each; ordinary construction; electric heating and lighting; cost \$2500 each; plans by W. H. Parker, Greenville; erection superintended by E. J. Lenz.

Miss., Meridian.—Stable.—C. B. Team Mule Co., J. T. Isbel, manager, awarded contract to C. M. Rubush of Meridian to erect stable; two stories; brick; to provide for 150 to 200 horses and mules. (Recently mentioned.)

SCHOOLS

Md., Baltimore.—City awarded contract to P. J. Cushman, 213 Cortland St., Baltimore, for erection of No. 76 school at Hull and Clement Sts.; three stories; brick; marble trimmings in corridors; size 37x76 feet; ordinary construction; hot-water heat; gas lighting; cost \$16,550; plans by Edw. D. Preston, City Hall, Baltimore. (Recently mentioned.)

Okla., Sulphur.—State Board of Education awarded contract to Dougherty-Kirby Construction Co. of Sapulpa, Okla., for erection of main building, power and lighting plant and four cottages at Oklahoma School for Deaf; \$100,000 appropriation. (Recently mentioned.)

S. C., Columbia.—County Board of Education awarded contract at \$11,983 to Weston & Booketer, Columbia, for erection of Waverly School; two stories; 10 rooms and auditorium; plans by Shand & Lafaye, Columbia. (Previously mentioned.)

Tenn., Chattanooga.—Hamilton County Board of Education awarded contracts for five schools as follows: Fairmount School at \$5740 to O. J. Carson; Retro School at \$5686 to D. F. Brandon; Tyner School at \$5500 and East Side School at \$5563 to A. W. Duncan; Patten Chapel School at \$5627 to P. O. Rogers & Son. (Previously noted.)

Tenn., Johnson City.—State Board of Education, Nashville, Tenn., awarded contract to S. M. Beaumont Company, Knoxville, Tenn., for erection of Normal School. (See Tenn., Nashville. Previously described.)

Tenn., Nashville.—State Board of Education, Nashville, awarded contract at \$126,000 to S. M. Beaumont Company, Knoxville, for erection of East Tennessee Normal School at Johnson City; rejected bids for erection of Memphis and Murfreesboro schools and is having plans modified for same by architects. (Previously described.)

STORES

Ark., Waldo.—J. C. Jackson awarded contract to J. L. Watkins, Waldo, for erection of store building recently noted; 25x100 feet; ordinary construction; mill finish; cost \$2000; plans by Witt & Siebert, Texarkana, Ark.

D. C., Washington.—Samuel Shoemaker, 1001 New York Ave. N. W., awarded contract to C. A. Langley, 310 12th St. N. W., Washington, for erection of store at 1228 G St. N. W.; three stories; brick; cost \$13,400; plans by Appleton P. Clarke, Jr., Union Trust Bldg., Washington.

Md., Baltimore.—A. C. Schmidt, 413 West Franklin St., awarded contract to Geo. Bunnecke & Sons, 305 St. Paul St., Baltimore, for erection of store building; three stories; brick; cost \$6500; plans by F. E. Tormey, 401 Wilson Bldg., Baltimore. (Recently noted.)

Tex., Gainesville.—Owen Saunders & Co. have plans by and awarded contract to Garrett & Collins, Gainesville, for erection of store building (recently noted); 135x190 feet; fireproof construction; plate-glass front; cost \$25,000.

Tex., Elkhart.—H. O. Tyler will expend \$3500 to erect store building; 27x80 feet; two stories; brick; plans by E. & D. Walling, Grapeland, Tex.; contract recently noted awarded to Dave Walling, Grapeland, Tex.

Va., Norfolk.—Mrs. E. A. Frank awarded contract to Ferring & Jarvis, Norfolk, for erection of \$5000 frame building.

Va., Norfolk.—Mrs. Alice L. Molt awarded contract to Griffin Bros., Norfolk, for erection of \$5300 frame building.

Va., Norfolk.—C. W. Fentress awarded contract to Jesse Johnson, Norfolk, for erection of four brick stores; cost \$48,000.

Va., South Hill.—Midva Realty Association awarded contract to J. D. Anders, 23 Essex Bldg., South Hill, for erection of store and hotel building recently noted. (See "Hotels.")

THEATERS

Tenn., Chattanooga.—Tennessee Realty & Leasing Co. awarded contract to A. F. Hahn Building Co., Chamberlain Bldg., Chattanooga, for erection of theater previously described; interior will be 110 feet long, with 50-foot ceiling; brick; terra-cotta trimmings; cost \$30,000; plans by A. Ten Eyck Brown, Forsyth Bldg., Atlanta, Ga.

Tenn., Chattanooga.—Tennessee Realty & Leasing Co., H. T. Sperry, secretary, Nashville, Tenn., awarded contract to Hahn-Boulden Company, Chattanooga, for erection of theater; 200x50 feet; ordinary brick with wood trusses; plenum blower system steam heat; electric lights; seating capacity 1100; cost \$35,000; plans by A. Ten Eyck Brown, Forsyth Bldg., Atlanta. (Recently mentioned.)

WAREHOUSES

Ky., Lexington.—Lexington Tobacco Warehouse Co. awarded contract to Louis Des Cognets & Co. of Lexington to erect addition to warehouse; concrete floors and walls; metal roof; estimated cost \$4000.

Md., Baltimore.—Adolph C. Meyer of A. C. Meyer & Co., 118 West Lombard St., awarded contract to Thomas B. Stanfield & Co., 109 Clay St., Baltimore, to erect warehouse at 112 West Lombard St.; six stories; 49x129 feet; brick; estimated cost \$29,000; plans by Mottu & White, 322 North Charles St., Baltimore.

Okla., Oklahoma City.—Great Western Store Co. has awarded contract to H. B. Yeakum, Leavenworth, Kans., for erection of proposed warehouse at 2 East Grand Ave.; five stories, including basement; 60x130 feet; brick; concrete basement; first floor to contain office and sample-room, with loading dock and two elevators; upper floors for warehouse purposes; estimated cost \$38,875.

Okla., Oklahoma City.—Excelsior Stove & Manufacturing Co., James H. Wilson, manager, 214-216 West 1st St., has begun erection of proposed warehouse and store building; four stories, including basement; brick; interior work of concrete; 100x120 feet; basement, 150x120 feet; total of 70,000 feet of floor space; estimated cost \$75,000; contract awarded to Interstate Construction Co. of Oklahoma City; plans by Layton, Weymss & Hawk of Oklahoma City.

Tex., Houston.—Nacogdoches Grocery Co. awarded contract to W. H. Young of Houston to erect warehouse; 50x100 feet; four stories and basement; reinforced concrete; cost \$35,000; plans by Land & Wittichell, Dallas, Tex. (Recently mentioned.)

Va., Richmond.—R. J. Reynolds Tobacco Co. awarded contract to Harwood & Moss, Newport News, Va., to erect warehouse; re-

inforced concrete; 250x65 feet; four stories; estimated cost, \$75,000; plans by Charles M. Robinson, Mutual Bldg., Richmond. (Recently mentioned.)

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Birmingham.—The Louisville & Nashville Railroad is reported to have let contract to the Furtwangler & Smith Construction Co. of Birmingham to build 10 miles of line from Corduroy, on the Selma Branch, to the mill of the Vanderburg Lumber Co., W. H. Courtenay is chief engineer at Louisville, Ky.

Ala., Dothan.—W. S. Wilson, general manager, says that the Alabama, Florida & Southern Railroad Co. proposes to build 30 miles of line from Marwill, Ala., to Deepwater. Several wooden bridges will be required. The first 19½ miles, built by Mr. Wilson, are ready for operation. The incorporators are E. L. Marbury, president and treasurer, Gordon, Ala.; George H. Malone, vice-president; J. W. Malone, secretary; W. S. Wilson, general manager, and B. G. Fanus, all of Dothan, Ala. E. S. Mickle is chief engineer. At the time of the incorporation a dispatch said that the line would be about 25 miles long from Marwill to Malone, Fla.

Ala., Andalusia.—An officer of the Central of Georgia Railway writes: "There is no truth in the report that this company has let contract to John W. Wright of Union Springs, Ala., for the building of a line from Andalusia to Pensacola." Another official is quoted as saying that no such extension is contemplated. J. W. Wright also denies the report in a letter to the Manufacturers Record. He is, however, doing some grading for the Central of Georgia at Henry Ellen, Ala., where he has three miles of heavy rock work.

Ala., Dothan.—A. F. Langford of Valdosta, Ga., is reported to have been awarded a contract for construction on the Atlanta & St. Andrews Bay Railway, which has headquarters at Dothan, Ala. A. B. Steele of Atlanta, Ga., is president of the road.

Ala., Gadsden.—Reported that the Kyle Lumber Co. has begun an extension of its railroad from Ball Play to Wisener Mountain to develop new timber land.

Ala., Mobile.—The Mobile Terminal Railway Co. has been incorporated with \$500,000 capital and has acquired land on Farmers Island, north of the city. Terminal tracks and other facilities will be built. John T. Cochrane, who owns nearly the entire stock, is president, the other stockholders being F. J. Lisman of New York; W. G. Cochrane, vice-president; K. R. Guthrie, secretary and treasurer, and R. K. Warren, all of Mobile.

Ala., Mobile.—An official of the Tombigbee Valley Railroad says that an extension of 12 miles is being built in Choctaw county and that the Alabama, Tennessee & Northern Railroad, controlled by the same interests, is building an extension to York, Ala. When these extensions are completed only 20 to 30 miles of track would be required to connect the two roads. Nothing is said concerning the rumored extension to Birmingham. John T. Cochrane of Mobile is president.

Ark., Arkansas City.—The Desha Lumber Co. proposes to build a railroad about five miles long to develop timber land in the eastern part of Louisiana. Connection will be made with the St. Louis, Iron Mountain & Southern.

Ark., McGehee.—An officer of the Hodges-Downey Construction Co. of St. Louis confirms the report that it has been awarded contract by the St. Louis, Iron Mountain & Southern Railroad to fill in 20 feet trestles between McGehee and Helena, Ark.

Ark., Hot Springs.—An officer of the Rock Island Lines denies the report that a plan is being considered for an extension from Hot Springs into the diamond fields of Pike county.

Ark., Magnolia.—S. Q. Sevier of Hope, Ark., president of the Gulf & Magnolia Northern Railroad Co., confirms the report that it has amended charter so as to build a line 130 miles long from Junction City to Horatio, Ark., via Magnolia, Bodcaw, Hope, Columbus and Mineral Springs through level to slightly rolling country. It has not yet been determined when bids for construction will be received. W. W. Millwee, Sr., superintendent and general manager, and Henry Nunan, chief engineer, with assistants, have arrived at Junction City, Ark., to locate line immediately toward Magnolia and Hope. It is believed that contract will be let and work begun about October 1. The through route is from Monroe, La., to Haleyville, Okla., or

near there. A branch is contemplated to Camden, Ark.

Fla., Brooksville.—The Tampa Northern Railroad is reported to have completed an extension of two miles from Toke Lake to Centella.

Fla., Gainesville.—The Tampa & Jacksonville Railroad Co. It is reported, has let contract to J. R. Emerson and Oliver & Kite of Gainesville for grading seven miles of line on the Southern end of the road. F. S. Parrigan is chief engineer at Gainesville, Fla.

Ga., Bowden.—The Bowden Railroad, a connection of the Central of Georgia Railway, is building 12 miles of line from Mandeville to Bowden, Ga. The route is through comparatively level country, but about 150,000 cubic yards of earth and rock will have to be moved. J. W. Wright, Jr., of Union Springs, Ala., is contractor, and the work will be completed within 60 days. Tracklaying has begun. J. M. Lovernie is president and general manager, and Henry Harris, chief engineer.

Ga., Hawkinsville.—T. B. Ragan of Hawkinsville is reported as saying that eight miles have been graded on the railroad which he is building from Hawkinsville to Perry, 22 miles. It is also proposed to extend from Hawkinsville southward.

Ga., Wrightsville.—The Wrightsville, Adrian & Lyons Railway Co., which recently amended its charter to increase capital from \$100,000 to \$1,000,000, is to extend its line from Wrightsville to Milledgeville, Ga., 50 miles, and also from Milledgeville to Brunswick, Ga., 30 miles. T. J. James of Adrian, Ga., is president.

Ky., Jackson.—Further information concerning the extension of the Lexington & Eastern Railway says that the line will run from Jackson generally southeast to the Breaks of the Big Sandy River on the boundary of Virginia. W. A. McDowell is general manager at Lexington, Ky.

Ky., Paducah.—The Illinois Central Railroad, says a dispatch, has begun construction of an incline at Paducah to handle trains on the Ohio River in connection with the Burlington System between Paducah, Ky., and Metropolis, Ill. A. S. Baldwin is chief engineer at Chicago, Ill.

Ky., Warren.—An officer of the Cumberland Railroad Co. says that contract has been let to S. P. Condon of Knoxville, Tenn., for an extension from Warren to the Brush Mountain tunnel, nearly three miles; also for the Tye Fork spur, from the main line northwest, also nearly three miles. Necessary materials are engaged and engineering forces secured. B. C. Milner is general manager and chief engineer at Warren, Ky. This denies previous report that the Gilson-Carr Construction Co. of Middleboro, Ky., had this work.

Mo., Parkton.—The New Park & Fawn Grove Railroad Co., New Park, Pa., will, it is reported, extend its line into Maryland to connect with the Maryland & Pennsylvania Railroad. An officer writes that eight miles will be built from Fawn Grove to Delta; country rolling; date not yet set for bids. John H. Anderson is president; John C. Wiley, vice-president and general manager; J. A. Galley, secretary; A. M. Strawbridge, treasurer; Robt. B. McKinnon, chief engineer.

Miss., Chicora.—An officer of the Robinson Land & Lumber Co. confirms the report that it will build a logging railroad from Chicora to Thompson Creek, 30 miles, the line running east and west. Work is done by the company's forces. E. W. Robinson is president and general manager at Mobile, Ala., and R. G. Brooks is chief engineer.

Mo., St. Louis.—The Springfield & Central Illinois Traction Co. is reported as saying that construction of its proposed interurban railway will begin immediately upon completion of preliminary work. Route is from Springfield to East St. Louis, Ill. Isaac A. Smith, Security Bldg., St. Louis, Mo., and others are interested.

N. C., Madison.—An officer of the Danville & Western Railway is quoted as saying that surveys are made for an extension from Leaksville to Madison, 12 miles, but it has not yet been decided to build the line. Theodore Parker is general superintendent at Danville, Va.

N. C., Thelma.—The Roanoke Valley Railway Co. has been chartered by W. E. Jones of Raleigh, N. C., and D. P. Camp of Franklin, Va., and others to build a railroad from Thelma, on the Seaboard Air Line, to the Virginia boundary, about 10 miles; capital \$50,000.

Okl., Billings.—Construction is reported begun on the Osage Western Railway from Billings via Fairfax toward Pawhuska and Bartlesville. The proposed route is from

Vinita to Enid, Okla., 178 miles. R. H. Hoss of Fairfax, Okla., is president, and E. J. Noonan of Muskogee, Okla., engineer.

Okl., Tulsa.—The Oklahoma Union Traction Co. of Tulsa has amended its charter to increase capital from \$100,000 to \$400,000, and President A. A. Small is quoted as saying that within 10 days construction will begin on the interurban from Tulsa to Sapulpa.

S. C., Greenville.—E. A. Hudson of Atlanta is reported to have begun work on the extension of the Greenville & Knoxville Railway from the Union Bleachery to the site of the proposed depot.

Tenn., Harriman.—Chief Engineer Clarke is reported to have begun survey for another route for the Harriman, Knoxville & Eastern Railway. C. E. Hendrick and others are the incorporators.

Tex., Abilene.—The Abilene & Southern Railroad is reported to have completed grade to Hamlin, Tex., and track-laying is under way, to be finished by September 15. President Morgan Jones of Abilene is reported contemplating further construction northwest from Hamlin to either Floydada or Paducah, Tex.

Tex., El Paso.—George B. Brady of El Paso is reported to have been awarded a contract by the United States Reclamation Service to build a branch railroad from a point on the Santa Fe five miles south of Engle, Tex., to the Engle dam, 10 miles. Brown & O'Connor of Tucuman, N. M., have contract for bridges.

Tex., Onalaska.—An officer of the Beaumont & Great Northern Railroad writes that it will build an extension of 19 miles from Trinity, Tex., westward. William Carlisle of Atchison, Kans., is president, and Hoxie Thompson of Onalaska, Tex., is general manager and chief engineer.

Tex., San Antonio.—The Galveston, Harrisburg & San Antonio Railroad, says a dispatch, has purchased a block of land north of its present passenger station to enlarge facilities. A. V. Kellogg is engineer in charge of way at Houston, Tex.

Tex., Stamford.—H. L. Erisman, engineer for the Stamford & Eastern Railway, is reported as saying that location survey from Stamford to Throckmorton will soon be completed. Contract is expected to be let within a month.

Tex., Hillsboro.—An officer of the Missouri, Kansas & Texas Railway denies the report that it is contemplated to build an extension from Hillsboro to Whitney, Tex.

Tex., Rotan.—President R. H. Baker of the Texas Central Railroad says the report is premature that an extension is contemplated from Rotan to Roswell, N. M.

Tex., Sweetwater.—According to a dispatch the Santa Fe will build large yards at Sweetwater, besides machine shops, etc., at a total cost of about \$1,000,000. F. Merritt is chief engineer at Galveston, Tex.

Va., Cape Charles.—The New York, Philadelphia & Norfolk Railroad, according to a report quoting an officer, is building a branch from Cape Charles to Townsend Cross Roads, 6½ miles. Elisha Lee is superintendent at Cape Charles City, Va.

W. Va., Huntington.—The Cincinnati & Pittsburgh Electric Railway Co. (previously reported) has been chartered under the laws of Delaware. Capital \$1,000,000. The incorporators are A. E. Cox, F. S. Kanode and C. R. Wyatt, all of Huntington, W. Va.

W. Va., Waverly.—A letter to the Manufacturers' Record denies the report that it is contemplated to build an electric railway from Waverly to Harrisville, W. Va.

STREET RAILWAYS

Ala., Montgomery.—C. F. Woodward of Boston, Mass., has applied to the City Council for a street-railway franchise. The proposed route is on the following streets or avenues: Lee, Montgomery, Court Sq., Dexter, McDonough and Felder to the Norman Bridge Rd.; also Adams, Union, Grove, Hull, Stephens and Forest to the city limits.

Fla., St. Augustine.—The Security Investment Co. is reported organized to take over the St. Johns Light & Power Co., including the street railway, and to build extensions of the latter. T. R. Osmond is president; E. N. Calhoun, vice-president; B. E. Dyson, secretary and treasurer, the other directors being William B. Denham and J. L. Crary.

La., New Orleans.—The New Orleans Railway, Light & Power Co. is quoted as announcing the beginning of construction on the extension from West End to Spanish Fort, about one and a half miles.

Tex., El Paso.—The El Paso Electric Rail-

way Co. has amended its charter to increase the capital from \$1,500,000 to \$2,500,000, and may make extensions.

Tex., Greenville.—The Greenville Railway Co. will file its charter shortly, \$25,000 bonus having been paid and franchise accepted. The directors are Albert Emmanuel, president; Lee A. Clark, vice-president; W. F. Briedenbach, secretary and treasurer; S. A. Price and H. L. Warren. Five miles are to be completed within a year and a half.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Automatic Sprinkler.—H. B. Allen Sikel, Stuttgart, Ark., wants catalogues and prices on automatic sprinkler devices, with view to taking agency.

Automobiles, etc.—J. A. Foote, Sheffield, Ala., wants to correspond with manufacturers of automobiles and motor trucks.

Boiler.—C. A. Stouffer, Harrisburg, Pa., wants 30-horse-power horizontal return-tubular boiler.

Boiler.—Jones Purchasing Agency, Suite 1028 Andrus Bldg., Minneapolis, Minn., wants 60-horse-power vertical boiler for boat; quick delivery.

Boilers.—Board of Affairs, Parkersburg, W. Va., will receive bids until September 14 at office of Frank Good, auditor, for furnishing and erecting two 200-horse-power water-tube boilers, 160 pounds pressure; specifications on file with City Auditor.

Boxes, Crates, etc.—J. E. Boren, 404 Moore Bldg., San Antonio, Tex., wants prices on boxes, crates, baskets, etc., for preserving factory.

Box-making Machinery, etc.—See "Dry Colors Machinery and Materials."

Brick Machinery.—A. H. Baker & Co., Pensacola, Fla., wants to correspond with manufacturers of brick machinery; wants complete plant for making clay cups of 1½ quarts capacity.

Bridge Work.—See Grading, etc.

Carbonating Machinery, etc.—Gilek & Co., Oklahoma City, Okla., wants catalogues, price-lists, etc., on material used in sale, manufacture and dispensing of carbonated beverages, etc., syrup dispensers and soda-water apparatus, including automatic syrup dispensers; also wants to correspond with cooperage, bottle, jug, porcelain and crate and box factories.

Carts.—W. A. Liller, 54 Mineral St., Keyser, W. Va., wants prices on carts.

Cement.—See "Lumber, etc."

Column Machinery.—Florence Column & on building materials, including finish hardware.

Chandeliers.—See "Plumbing Supplies."

Coke Ovens.—James Harrington, Texarkana, Tex., wants information on coke ovens; cost, etc.; has abundance of brick-making clay at mine.

Church Furniture.—Urban & Waiser, Thorndale, Tex., wants catalogues and prices on pews, altars and pulpits.

Conveying Machinery.—See "Dry Colors Machinery and Materials."

Cotton Picker.—W. E. Toler, Pawnee, Okla., wants addresses of manufacturers of mechanical cotton picker.

Crate and Box Factories.—See "Carbonating Machinery, etc."

Crusher.—W. A. Liller, 54 Mineral St., Keyser, W. Va., wants prices on small portable stone crusher with an elevator and screen; capacity about eight tons per hour.

Cut Gear.—I. E. McGehee, Chatham, Miss., wants addresses of manufacturers of cut gear, both long and very small.

Dam Construction.—Bids will be received until September 14 for construction of earthen dam about one mile from Meridian, Miss.; plans and specifications can be had

by addressing J. M. T. Hamilton, civil engineer, P. O. Box 438, Meridian.

Drainage.—Commissioners of Brazoria County Drainage District No. 4 will receive bids at office of County Judge, Angleton, Tex., until October 4 for excavation of 646,786 cubic yards of earth in construction of canals, drains, ditches and laterals in said drainage district; clearing and grubbing 13.1 acres; clearing 16.6 acres; plans and specifications may be seen at office of William Bradburn, engineer in charge, at Pearland, Tex.; also of E. C. Miller, secretary of Commissioners, at Pearland, and of E. S. Atkinson, County Judge, at Angleton; bids will be received for work complete or for any division thereof, which bid shall be accompanied by certified check for 5 per cent. of total amount bid; O. W. Willis, chairman, and E. G. Miller, secretary of Drainage Commission.

Dredging.—Bids will be received at U. S. Engineer Office, Wilmington, N. C., until noon, October 10, for dredging in Shallow Bay, South River, Bay River, and waterway connecting Swan Quarter Bay, N. C. Information on application; Earl I. Brown, captain engineers.

Dredging.—U. S. Engineer Office, Savannah, Ga. Proposals for dredging in Harbor at Savannah, Ga., will be received until noon October 1; information on application; Dan C. Kingman, Colonel, Engineers.

Dredging.—Bids will be received at U. S. Engineer Office, Galveston, Tex., until September 10 for dredging Port Bolivar channel; information on application; G. P. Howell, Major, Engineers.

Dredging.—Bids will be received at U. S. Engineer Office, Galveston, Tex., until September 27 for dredging channel from Aransas Pass to Corpus Christi, Tex.; information on application; G. P. Howell, Major, Engineers.

Dredging Machinery.—Welman Bradford, Itapetinga, Estado de S. Paulo, Brazil, wants prices f. o. b. New York on large dredges for use in rectification and straightening bed of river 280 feet wide, depth below water about 8 to 10 feet, with 20 feet between alluvial banks which stand 30 feet above water; will probably require suction dredge, with large capacity for discharging mud, sand and earth through tubes or pipes on either side for filling marshes; timber hull to be knocked down, ready to be put together in Brazil; state capacity per hour; will also want one or two small machines for ditching.

Dry Colors Machinery and Materials.—Berenger & Co., 12 Rue Senac, Marseilles, France, will want machinery and materials for manufacture of dry colors (colors in powder), including mixing and pulverizing machinery, to mix plaster, carbonate of lime, etc., with dry colors, such as ochre, ultramarine, etc.; machines to fill and empty themselves automatically, and operate and produce continuously; carriers, lifts, conveyors, automatic scales, oscillators (pulsaturs), sieves, etc.; machines for placing the manufactured powders (colors) in packages of 500 grammes, and these packages in boxes; also box-making, nailing and marking machines; aspirators (pneumatic exhausts), fixed and movable, for removing dust and keeping machines clean; heating machines, beaters for cleaning empty sacks, etc.; will need very concentrated coloring materials to color 70 to 80 per cent. of white; very hard; capable of resisting action of light alkalis, cement and acids (cannot use colors with aniline base). Send catalogues and samples; replies in French preferred; catalogues may be in English, Spanish, Italian or French.

Electric Generating Equipment.—See "Piping, etc."

Electrical Machinery.—See Ventilating Equipment.

Electrical Machinery.—E. & K. Co., 126 Liberty St., New York, wants two 50 to 75 K. W. direct-connected sets; also 150 K. W. (or larger) direct-connected set.

Electrical Machinery.—See "Engine."

Electrical Machinery.—Edward A. Horne, 450 Cherry St., Macon, Ga., wants prices on two motor fans for ventilating.

Electrical Machinery.—I. E. McGehee, Chatham, Miss., wants addresses of manufacturers of storage batteries and small electric motors.

Engine.—C. A. Stouffer, Harrisburg, Pa., wants 25-horse-power automatic cut-off steam engine.

Engine.—See "Pump."

Engine.—Virginia Excelsior Co., Fredericksburg, Va., wants new or second-hand 15 to 25-horse-power automatic engine for driving dynamos; would consider direct-connected unit of about this size.

Engine.—F. & K. Co., 126 Liberty St., New

York, wants 50 to 75 horse-power gas engine complete, with tank.

Engines.—Jones Purchasing Agency, Suite 1028 Andrus Bldg., Minneapolis, Minn., wants two long-stroke 20-horse-power boat engines for stern-wheel propeller; quick delivery.

Engines.—H. B. Allen Sikel, Stuttgart, Ark., wants catalogues and price-lists, with view to taking agency, on automatic engines and gasoline engines, 35 to 80 horse-power.

Engines.—Board of Affairs, Parkersburg, W. Va., will receive bids at office of Frank Good, auditor, Parkersburg, W. Va., until September 14 for furnishing and erecting two 4,000-gallon vertical pumping engines; specifications on file with City Auditor.

Flour-mill Machinery, etc.—T. W. Belsher, Steens, Miss., wants to correspond with manufacturers of flour-mill machinery and grist mills.

Fruit Oils, etc.—Glick & Co., Oklahoma City, Okla., want to correspond with manufacturers of fruit oils and essentials, extracts, etc., used in manufacture of non-alcoholic drinks.

Gas and Electric Fixtures.—J. R. Vansant, 2556 Jefferson St., Kansas City, Mo., wants prices on combination gas and electric fixtures.

Glass Jars.—J. E. Boren, 404 Moore Bldg., San Antonio, Tex., wants prices on glass jars in car lots for preserving.

Grading.—See "Paving etc."

Grading, etc.—Street Commission, Louis S. Holden, chairman, City Hall, Wilmington, N. C., will receive bids until September 9 for grading Hanover St., from Fourth to Water Sts., and building approaches to Sixth St. bridge across Atlantic Coast Line tracks; plans on file at city engineer's office, City Hall.

Graphite-extracting Machinery.—Geo. E. Searing, Towanda, Pa., wants addresses of manufacturers of machinery for extracting graphite from ore.

Hardware.—See Building Materials.

Heating and Cooling Plant.—Edward A. Horne, 450 Cherry St., Macon, Ga., wants prices on combination heating and cooling plant (blower system).

Heating Plant.—F. A. Losley, Staunton, Va., wants prices on hot-water heating plant.

Heating Plants.—J. R. Vansant, 2556 Jefferson St., Kansas City, Mo., wants prices on hot-water boilers, radiators, etc.

Heating Plant.—W. L. Blanks, president board of trustees, M. E. Church South, Hamburg, Ark., wants prices on heating plant for \$15,000 church building.

Hoisting Engines.—F. & K. Co., 126 Liberty St., New York, wants 10 or 12 (or larger) double-cylinder, single or double-drum skeleton hoisting engines.

Lathe.—A. Kamins, Tarpon Springs, Fla., wants second-hand lathe.

Levee Construction.—Office Board of Levee Commissioners of Orleans Levee District, Room 15, Masonic Temple, New Orleans, La. Proposals will be received until 8 P. M. September 15 for construction of following work: Walnut to Joseph St.—Enlargement and revetment, sixth district; length 6650 feet, contents 116,000 cubic yards of earth and 116,750 feet B. M. of cross-sloped lumber; deposit \$400; certified check or cash; bond \$15,000; for plans, specifications, bidder's blanks and further information, address above office; Jules C. Koenig, president, and Peter E. Mantz, secretary, Levee Commissioners.

Locomotives.—Jones Purchasing Agency, Suite 1028 Andrus Bldg., Minneapolis, Minn., wants two 20x26-inch cylinder heavy Moguls; 180 (or more) pounds pressure; quick delivery.

Lumber, etc.—Bids are invited for supplying material for proposed seawall on Lake Pontchartrain as follows: 1300 pine piles, 55 feet long, 7 inches small end; 480,000 feet B. M. No. 2 common, 2x8x16 D. 4 S.; 5000 L. feet 6x6 (C) grade; 2000 cubic yards gravel or broken stone; 1200 cubic yards sand; 6000 barrels cement; all delivered f. o. b. Lake Pontchartrain, near proposed seawall. Address Henry Monk, general contractor, P. O. Box 642, Pensacola, Fla.

Lumber.—Isothermal Traction Co., Rutherfordton, N. C., will receive bids for following: 8000 oak cross-ties delivered at Gastonia, N. C.; 20,000 oak cross-ties delivered at Dallas, N. C.; 200 pine, cedar or chestnut poles, 14-inch butts, 6-inch tops, 28 feet long, delivered at Gastonia; 750 same character poles delivered at Dallas; in making bids for ties, state whether hewed or sawed, peeled or not, dry or green, and kind of oak; all ties to be 8 feet long and 6 inches square; give full details as to poles; state in bid when delivery can begin and how fast delivery can be made.

Metal Ceiling.—Urban & Waiser, Thorn-dale, Tex., wants prices on metal ceiling.

Mill Supplies.—May & Turner Company, Atlanta, Ga., wants catalogues and prices on supplies used by mills.

Mixing and Pulverizing Machinery.—See "Dry Colors Machinery and Materials."

Motor Trucks. See "Automobiles, etc."

Oil Burners.—W. E. Toler, Pawnee, Okla., wants addresses of manufacturers of oil burners to burn distillate oil in stoves and under boilers.

Oil-mill Machinery.—Mart Cotton Oil Co., Chas. Meroney, manager, Mart, Tex., will open bids September 10 on pressroom and linting-room machinery.

Paving.—J. B. Winslett, City Secretary, Dallas, Tex., will receive bids until September 9 for paving Main St. from Houston to Water Sts.; Market St. from Jackson St. to Pacific Ave.; Griffin St. from Cochran St. to Pacific Ave.; each bidder to bid separately on following materials: Griffin St.—Bitulithic pavement on concrete base, cross-sloped pine blocks on concrete base, and vitrified brick blocks on concrete base; Main and Market Sts.—Cross-sloped pine block pavement on concrete base, and vitrified-brick blocks on concrete base; certified checks, \$600, \$200 and \$50, respectively.

Paving.—R. L. Jones, Mayor, and Common Council, Hugo, Okla., will receive bids until 8 P. M. September 20 for grading, building manholes and catch basins, laying necessary drainage tile, curb and gutter, and paving on Railroad, Dewey, Crockett, Jefferson, Duke, Jackson and other streets; plans and specifications prepared by H. C. Blanchard, City Engineer; certified check 5 per cent. of bid; W. T. Echols, City Clerk.

Paving.—City of Bartow, Fla., Chas. H. Walker, Mayor, wants estimates on construction of five miles brick or cement sidewalk.

Paving.—Robert Tait, City Treasurer, Montgomery, Ala., will receive separate bids until September 19 for improvement of Day St. by grading, curbing, constructing sewers, walls, etc.; paving roadway on Highland Ave. with clay gravel, together with necessary granite curb, sewers, gutters, etc.; paving sidewalks on following streets with hexagon tile or Schlilling pavement, together with necessary curb, gutters, sewers, etc.; Highland Ave., South Perry St. and South Court St.; plans and specifications on file in office of City Engineer; certified check as stated in specifications.

Paving.—John Skain, Mayor, Lexington, Ky., will receive bids until September 12 for improvement of South Broadway with brick, asphalt or cross-sloped wooden-block paving; approximate quantities, 4710 square yards paving for city, 1890 square yards paving for Lexington Railway Co.; 355 cubic yards concrete for city, 630 cubic yards concrete for Lexington Railway Co.; 1150 feet limestone or granite curbing.

Pipe Machines.—F. & K. Co., 126 Liberty St., New York, wants one 2½ to 8-inch and one 4 to 12-inch pipe machines; motor or belt-driven.

Piping.—J. B. Winslett, City Secretary, Dallas, Tex., will receive bids until September 12 for laying 30-inch main on Sycamore St. from Grigsby to Fitzhugh; on Fitzhugh to Live Oak; on Live Oak to Munger Blvd. and 36-inch main on Live Oak from Munger to right of way of pipe line; on right of way of pipe line to White Rock pumping station; specifications on file in office of Water Department; certified check in the sum for \$500 to accompany each bid.

Pipe-cutter.—A. Kamins, Tarpon Springs, Fla., wants second-hand pipe-cutter.

Piping, etc.—Office Executive Committee, State Tuberculosis Sanatorium, 708 Gould Bldg., Atlanta, Ga. Bids are invited until September 20 on following materials and work at State Tuberculosis Sanatorium, Alto, Ga.; material to be delivered f. o. b. sanatorium sidetrack, near Alto; for plans, specifications or other information apply to R. T. MacDonald, superintendent of construction, Alto, or W. G. Raoul, chairman, Atlanta: 1—3150 feet 4-inch cast-iron pipe; 15 4x4-inch tees; Class B, standard specifications. 2—800 feet of 8-inch, 1200 feet of 6-inch, 1400 feet of 4-inch pipe; 2 8x6-inch branches; 6 8x4-inch, 14 6x4-inch branches. 3—50,000 brick. 4—Four cast-iron manhole covers; 8 fire hydrants; 7 4-inch gate valves. 5—Furniture, etc. 6—Excavating for and laying 3150 feet 4-inch cast-iron water pipe, calking lead joints and setting 8 hydrants; also 800 feet 8-inch, 1200 6-inch and 1400 4-inch sewer pipe, cement joints; constructing 4 manholes; excavating and curbing one cistern 23 feet diameter, 8 feet deep; one cistern dry curbed, 8 feet diameter, 10 feet deep; contractor to furnish lead, cement and hemp packing. 7—Grading

roads and grounds about building. 8—Wiring main building and four shacks in course of construction for electric lighting; furnishing and installing fixtures for same. 9—Construction of power-house 18x24 feet; brick, with metal roof; contractor to furnish labor and material, except brick. 10—Oil or gasoline electric generating set to perform following service: Supply current for 200 16-candle-power lights by night; current for operating during day pump for raising 80 gallons of water per minute to height of 208 feet, horizontal distance 1350 feet, size of main 4 inches; also motor-driven pump for above service; bidder to give name of manufacturer and furnish plans. 11—Installing plumbing and heating system in infirmary building and four sleeping shacks.

Plumbing Supplies, etc.—Jake Westbrook, Belton, Tex., wants prices on electric chandeliers and plumbing supplies.

Plumbing.—J. R. Vansant, 2556 Jefferson St., Kansas City, Mo., wants prices on plumbing.

Preserving Machinery.—See "Vinegar and Preserving Machinery."

Printing Presses etc.—Sunny Texas Song House, San Antonio, Tex., wants addresses of manufacturers of printing presses and supplies.

Pulley.—E. E. Jackson Lumber Co., Rlderville, Ala., wants second-hand split pulley for flywheel 32 or 36-inch face, 14 feet diameter, 10-inch bore, 2½-inch keyway, hub 2 feet long. Quote price.

Pipe.—F. & K. Co., 126 Liberty St., New York, wants wrought-iron pipe from 1 inch to eight inches.

Pump.—J. H. Collier, Corinth, Miss., wants catalogues and prices on belt-driven pump for four-inch well 150 to 200 feet deep; water will pump 40 to 50 feet down; tank is 25 feet above ground; wants to correspond with manufacturers.

Pump.—Jones Purchasing Agency, Suite 1028 Andrus Bldg., Minneapolis, Minn., wants 8-inch direct-connected sand pump; 40-horse-power engine; quick delivery.

Pump and Motors.—Major G. D. Deahon, medical corps, quartermaster, Hot Springs, Ark., will receive bids until 11.30 A. M. September 10 for furnishing and installing one triplex motor-driven pump and two motors, one A. C. and one D. C.

Pumps.—H. B. Allen Sikel, Stuttgart, Ark., wants catalogues and prices on pumps, with view to taking agency.

Pump.—W. A. Liller, 54 Mineral St., Keyser, W. Va., wants prices on belt-driven lift and force pump to raise 3000 to 5000 gallons per hour.

Rails, Ties, etc.—North Carolina Traction Co., Southern Pines, N. C., wants iron and cross-ties for 100 miles of railroad track (mainly new iron); can use 20 miles of 40, 50 and 60-pound relaying rail; new rail to be 60-pound.

Rails.—North Fork Lumber Co., Azalea, N. C., wants to lease six to eight miles 35 to 50-pound relaying rail. Give price, etc.

Rails.—John F. Riley Foundry & Machine Works, Charleston, S. C., wants two or three miles 25-pound relay rails; complete with splice bars, pipes and spikes; will purchase or rent; state price, condition and where can be seen.

Railroad Supplies.—May & Turner Company, Atlanta, Ga., wants catalogues and prices on supplies used by railroads.

Railroad Construction, etc.—North Carolina Traction Co., Danbury, N. C., will receive bids on material, construction work, bridge work, concrete and track finishing work on 100 miles of track; to be completed within 12 months from date of contract; same will be let in sections so as to insure completion within time named; for specifications apply to company.

Refuse-disposal Plant.—City of El Paso, Tex., will open bids September 20 for construction of refuse-disposal plant; building for combined incinerator and pumping station, reinforced concrete; 2,000,000 centrifugal pump against about 60-foot head; 3,000,000 centrifugal pump; one acre of filter beds, with necessary dosing tanks; Public Works Engineering Co., Beck Bldg., Portland, Ore., engineers in charge; F. D. Todd, City Engineer.

Road Construction.—Permanent Road Improvement Commission of Norfolk County, Norfolk, Va., will receive bids until September 19 for construction of about three miles of macadam on Cottage Toll Rd. between Norfolk and Ocean View; specifications prepared by State Highway Commission, P. St. J. Wilson, State Highway Commissioner, Richmond, Va., which, together with map of route, can be seen at office of commission; certified check, \$500.

Road Machinery.—See "Scrapers."

Safe.—Bank of Pelion, L. W. Wise, president, Pelion, S. C., may purchase second-hand burglar-proof safe.

Safe, etc.—Southern National Bank, John E. Greenleaf, cashier, Richmond, Ky., will probably want safe, vault and other bank fixtures within next 12 months.

Seating.—See "Church Furniture."

Seating.—W. L. Blanks, president board of trustees, M. E. Church South, Hamburg, Ark., wants prices on seating for \$15,000 church building.

Scrapers.—W. A. Liller, 54 Mineral St., Keyser, W. Va., wants prices on wheeled scrapers.

Shafting.—I. E. McGehee, Chatham, Miss., wants addresses of manufacturers of flexible shafting.

Shuttle-block Machinery.—G. A. Campbell, care of Memphis, Dallas & Gulf Railroad Co., Nashville, Ark., wants addresses of manufacturers of or dealers in shuttle-block machinery.

Sprinkler.—City of Bartow, Fla., Chas. H. Walker, Mayor, wants prices on street sprinkler.

Suction Dredge, etc.—Sealed proposals will be received at the office of the General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10.30 A. M. September 20, 1910, at which time they will be opened in public, for furnishing suction dredge ladder, steel castings, steel discharge pipe, electric motors, punches and dies, electric cable, lumber, etc. Blanks and general information relating to Circular No. 603 may be obtained from above office or offices of Assistant Purchasing Agents, 24 State St., New York city; 55 National Realty Bldg., New Orleans, La.; and 1086 North Point St., San Francisco, Cal.; also from the U. S. Engineer offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, O.; Cincinnati, O.; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala.; and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill.; and Chamber of Commerce and Board of Trade, Tacoma, Wash. F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Tower Finalis.—Urban & Waiser, Thorn-dale, Tex., wants prices on tower finalis.

Traction Engines.—W. E. Toler, Pawnee, Okla., wants to correspond with manufacturers of traction engines.

Vault.—Bids will be received at Wichita Falls, Tex., until September 19 for erection of safety vault for district clerk; vault on floor beneath to be used as foundation; said vault has steel walls with concrete between same for top and bottom with line of center metallic posts. Address M. F. Yeager, Wichita County Judge, Wichita Falls, Tex.

Viaduct Construction.—John L. Young, County Judge, Dallas, Tex., will receive bids until 10 A. M. October 1 for construction of Dallas-Oak Cliff viaduct; plans and specifications may be obtained from J. F. Witt, County Engineer, County Courthouse, Dallas, upon application and payment of \$5; plans and specifications will also be on file at office of County Engineer; bidders are requested to visit site, to make their own investigation regarding materials, location, facilities for delivery of materials, etc.; work will include about 43,500 cubic yards of reinforced concrete, steel span 100 feet in length, 49,000 linear feet of concrete piling, 8900 linear feet of timber piling, and all other details necessary to complete structure; certified check, \$25,000.

Vinegar and Preserving Machinery.—J. B. Hausberger of Old Virginia Orchard Co., Front Royal, Va., wants machinery for manufacturing jelly, cider, vinegar, etc., from apples.

Water-works.—See "Pump."

Water-works.—Board of trustees, C. W. Marston, acting president, Haskell, Okla., will receive bids until September 22 for furnishing material and constructing system of water-works; will require 12,800 feet of six-inch cast-iron pipe; 17,200 feet of four-inch cast-iron pipe; 25 fire hydrants; 7600 pounds fitting; 18 valves and boxes; galvanized-iron pump-house; two pumps of combined capacity of 500 gallons per minute; one boiler, steel tower and tank, 120 feet maximum water bin, 60,000 gallons capacity; bids will be received for furnishing any of materials above or for constructing works complete; proposals to be addressed to E. A. Riley, Town Clerk, and be accompanied by certified check for 3 per cent. of bid; plans and specifications on file in office of Town Clerk or James T. Gates, engineer, Wagoner,

Okla.; blank proposal forms can be obtained from Town Clerk or Engineer.

Well-drilling, etc.—Board of Affairs, Parkersburg, W. Va., will receive bids at office of Frank Good, auditor, until September 14 for building pump well, pipe gallery and foundations; specifications on file with City Auditor.

Well-drilling.—City of Hartselle, Ala., wants bids on boring well for municipal water supply. Address The Mayor.

Well Machinery.—H. B. Allen Sickel, Stuttgart, Ark., wants catalogues and prices on well machinery, with view to taking agency. Woodworking Machinery.—See "Column Machinery."

INDUSTRIAL NEWS OF INTEREST

With the Kennicott Company.

Herman Nietzer, formerly sales manager for the Canton Boiler & Engineering Co., Canton, O., has resigned his position with that company to accept a position as salesman in the tank department of the Kennicott Company, main offices, 602 Corn Exchange Bank Bldg., Chicago. The Kennicott Company engages as chemist, engineer and manufacturer.

With Edward Flash Company.

Announcement is made that James S. Hunter of Rowesville, S. C., has formed a connection with the Edward Flash Company of New York city, and will represent that company in Atlanta, the appointment having become effective September 1. For several years Mr. Hunter has been interested in the oil-mill industry in South Carolina, first engaged as a machinist and later in a clerical capacity.

Master Mechanic Wanted.

The Fulton Bag and Cotton Mills of Atlanta, Ga., desires to engage a master mechanic to take charge of repairs and maintenance of an entire plant, consisting of two cotton mills having 100,000 spindles and 2500 looms, together with bleachery, bag mill and steam and electric power plant of 6000 horsepower. Applicants are invited to give references, with full information as to age, salary expected, etc.

To Sell Foundry and Machine Shop.

The attention of prospective purchasers is invited to an announcement offering for sale a well-equipped foundry and machine shop in a large Southern city. This plant consists of new brick buildings, with good equipment and side-track facilities. Its trade aggregates from \$150,000 to \$200,000 per year, and the seller will probably take stock in a new enterprise. For details address Machine Shop, care of Manufacturers Record, Baltimore.

The Southern Engineering Co.

A new company for the practice of engineering throughout the Southern States has been organized by Alf Oldfield, Assoc. Mem. Can. Soc. C.E., and Horace P. Ramey, civil engineer. This is the Southern Engineering Co., with offices at 411-412 Clark Bldg., Jacksonville, Fla. It will specialize in water-power development, municipal construction and colonization enterprises, and already represents in Florida extensive Chicago interests.

Edison's Cement House.

For the first time at any cement show the Edison poured-cement house will be exhibited to the public at the coming cement show in Madison Square Garden, New York city, December 14-20. After a great deal of effort and many arguments with Mr. Edison, he has consented to make a display of his poured cement house and personally to install and supervise the exhibit.

Better Chicago Facilities.

Announcement is made that the Chicago store of the L. S. Starrett Company of Athol, Mass., is now permanently located in new and larger quarters at 17 North Jefferson street, with Al T. Fletcher, manager. The company invites its friends to call and inspect its complete stock of fine mechanical tools and better facilities for prompt and efficient service. The New York office of the Starrett Company is located at 122 Liberty St.

Manager and Assistant Manager of Sales.

Announcement is made that the Carnegie Steel Co. of Pittsburgh, the Tennessee Coal, Iron & Railroad Co. of Birmingham and the Illinois Steel Co. of Chicago have appointed Charles C. Cluff manager of Sales for the New York district, vice Charles W. Baker, resigned. The same companies have appointed Richard Wayland-Smith assistant manager of sales, both appointments effective September 1.

Receives Roofing Contracts.

A Southern roofing company which has recently received a number of important con-

tracts for roofing buildings of various kinds is the Athens Roofing Co., 187 Broad St., Athens, Ga. This company handles pitch, coal tar, crushed stone, one, two and three-ply tarred felt, and contracts to furnish labor and materials to roof buildings of any size, re-roof structures and repair leaks. It has secured a contract from the Foy-Proctor Company of Nashville, Tenn., to roof a car barn at Athens; from Carter Bros. of Jefferson, Ga., for roofing a warehouse with tar and gravel; from Braselton Bros. of Braselton, Ga., and J. R. Dortch Company of Lavonia, Ga., for roofing store buildings with tar and gravel.

Secures Important Order.

Herbert R. Lunke, Commercial Bank Bldg., Houston, Tex., has assumed the management of the Houston office of the De La Vergne Machine Co., main office at the foot of 138th St., New York, and has secured an order from the Kingsville (Tex.) Power Co. for one 250-horsepower De La Vergne type "FH" oil engine direct connected to 60-cycle three-phase alternator. This engine will be delivered and erected by the De La Vergne Company in the electric-light and power plant which the Kingsville Power Co. is erecting. Electric transmission to motor drive will be used throughout the plant, and power will be employed to operate cotton gin, cotton-oil mill and pumping plant. A small portion of the output will also be sold locally for light and power purposes.

Chief Engineer Wanted.

Applications for the position of chief engineer are invited from those qualified to take charge of a combination power plant of 10,000-kilowatt capacity, high tension and direct current, turbines and reciprocating engines, etc. It is announced that to fill the position properly applicants should be familiar with Corliss compound engines, alternating and direct current generators, refrigerating and ice-making. Only those who have had technical training with practical experience and have held a similar position and with clean records need apply. To the right party a liberal salary is offered with a chance for promotion for efficient service. Applications may be addressed to Box 574, Richmond, Va., with a statement as to experience, reference and salary expected.

Gasoline and Oil Storage.

The Hydraulic Oil Storage Co., 606 Penobscot Bldg., Detroit, and 25 Broad St., New York, has recently established an office at 215 East Lexington St., Baltimore, with H. D. Emerson in charge. This company manufactures the hydraulic system of gasoline and oil storage, and is distributing literature illustrating and describing its equipment. Among advantages claimed for the system is the fact that gasoline or oil cannot be exploded by fire, lightning or electricity; that it delivers clean gasoline with no dirt in it from the top of the tank; no air in storage tank at any time; no loss from evaporation; no gas forced out when tank is refilled, and possessing other economical and efficient features. Recent installations of this system by the Detroit and New York offices have been made for Elmer Atkinson, Almo, Pa.; E. W. Jansen, Atlantic Highlands, N. J.; Henry F. Herdy, Bethlehem, Pa.; American Locomotive Co., Boston; L. Curth & Sons, Brooklyn; Brush Motor Car Co., Detroit; Jenks & Muir Manufacturing Co., Detroit; Helen N. Gould, Irvington-on-the-Hudson, N. Y.; Barney Oldfield, Seattle, Wash.; American Express Co., American Locomotive Co., Singer Manufacturing Co. and others, New York; Mrs. Drexel, Stoddard-Dayton Company and others, Philadelphia; C. E. Van Fleck, Montclair, N. J.; R. C. Clowry, Tarrytown, N. Y., and many others in various parts of the country.

TRADE LITERATURE.

Carey Revised Price-List.

Revised price-lists applying to the sixth edition of the catalogue of the Carey Machinery & Supply Co., 119-121 East Lombard St., Baltimore, Md., are being distributed. These lists are comprehensive and embrace various kinds of machinery, supplies, etc.

The Peck Carrier.

The gravity bucket carrier, consisting of a continuous series of buckets pivotally suspended between two endless chains, represents one of the highest developments of carrying devices. A carrier of this character which has been widely introduced and has given eminently satisfactory and efficient service for carrying coal, coke, ashes, cement, sand, stone, ore and other materials is the Peck carrier. This device is manufactured by the Link-Belt Company, Nictown, Philadelphia; Chicago and other cities, and is described and illustrated in catalogue No. 81, which the company is distributing.

Fox Motors for 1910.

In the history of motor boating it is claimed the Fox motors have a record for actual performance that has never been equaled. The motor boat Br'er Fox II, equipped with an eight cylinder 5x5 Fox motor, maintained an average speed of 29.6 miles per hour from Cincinnati to New Orleans, a distance of 1554 miles, Government measure. This run was publicly announced, and thousands of people examined the Br'er Fox II and her motor at various towns and cities en route. Fox motors are manufactured by the Dean Manufacturing Co., "South Cincinnati," Newport, Ky., and are illustrated and described in literature which the company is distributing.

A New Style Lathe.

The Rahn-Carpenter Company of Cincinnati has made arrangements with the Knoxville Foundry & Machine Co. of Knoxville, Tenn., by which the latter company will manufacture a new lathe, claimed to be the best on the market for jobbing shops. This lathe is of the sliding-gap type and has a swing from 24 to 48 inches, meeting the requirement of several lathes in one, with extra length to bed. A folder which the Rahn-Carpenter Company is distributing illustrates and describes this lathe, detailing its advantages for handling large, small or medium work. The Knoxville Foundry & Machine Co. has successfully manufactured machine tool castings for the Rahn-Carpenter Company for seven years, and will now begin to manufacture the entire lathe.

Stone-Crushing Equipment.

The Eureka Stone & Ore Crusher Co. of Cedar Rapids, Iowa, has published catalogue No. 6 descriptive of its stone-crushing machinery and equipment. It contains information of value to contractors, road builders, block and tile manufacturers, mining engineers, and describes the different uses to which the Mitchell Improved crusher can be put. This crusher is made in 15 different sizes with capacities ranging from 1 to 30 tons an hour. It also describes the Mitchell Eureka crusher, a machine of all-steel construction, designed to reduce three-inch and four-inch rock or ore to sand in one operation. The Eureka Stone & Ore Crusher Co. equips plants complete with elevators, screens, bins and dump cars. It has recently established a large new factory, and its facilities for manufacturing are excellent.

Natural Gas for Laredo.

[Special Cor. Manufacturers Record.]

Board of Trade.

Laredo, Tex., September 3.

Several carloads of pipe have already been dumped on the ground here and a great many more carloads are now en route for Laredo's gas line. The gas, a natural article, will be pumped here from Reiser, Tex., 27 miles distant. Actual work of laying the pipe line will be begun within the next few days and will be rushed rapidly to completion.

The Laredo Board of Trade believes that this spells a new era in the commercial and industrial history of this city. "The Gateway to Mexico." Laredo already has more or less supremacy, so far as the question of fuel is concerned, because of her coal mines, only 26 miles distant, and with natural gas as an added entrant it is felt that there is no reason why the city should not forge very rapidly to the forefront.

The gas will be piped through all of the business streets and all of the more prominent residence streets, and it will not be long until the people of Laredo will be gas users.

The promoters and proprietors of the gas line have announced that a rate of 15 cents

per 1000 cubic feet will be made to consumers of gas for manufacturing purposes. The rate for domestic use has not yet been announced.

Arkansas Commercial Secretaries.

The first meeting of the members of the Arkansas Commercial Secretaries' Association was held in Little Rock August 29. Geo. R. Brown, secretary of the Little Rock Board of Trade, is president of the association, and presided at the meeting. J. A. Ward, secretary of the Helena Board of Trade, is the State secretary, and was also present. Preceding the business there were enthusiastic addresses by H. L. Remmet, president of the Little Rock Board of Trade, who is also president of the Mercantile Trust Co.; Chas. McKee, president of the Business Men's League, who is also vice-president of the State National Bank, and A. R. Bragg, manager of the Merchants' Freight Bureau. The business of the association as outlined by the appointment of committees shows that the organization is to take an important part in the development of Arkansas and the cities of the State. Committees were appointed on legislation, State fair, membership, good roads, exhibits, publicity and factories. A secret committee on advertising was also appointed. To this committee will be referred all advertising propositions. By this means it is hoped to eliminate fakes and frauds.

Factory Organization and Administration.

By Hugo Diemer, M.E. Publisher, McGraw-Hill Book Co., New York, Price, \$3.

Within the past 25 years a specialization of the engineering profession has come to the front in the industrial engineer or the production engineer, whose chief business is to enable capital invested in manufacturing to get the best returns possible. An outcome of this specialization is a steady stream of publications in magazine articles, in monographs and in more formal and permanent volumes. The work of Mr. Diemer of the last class mentioned is designed for the use of officers of manufacturing corporations, works managers, superintendents, accountants and the heads of various departments in industrial establishments, and it represents the results of about 20 years' experience on the part of the author as an employee and as a consultant. In separate chapters following discussion of industrial engineering generally and the economic theory of factory location are treated such topics as the planning of factory buildings, staff and departmental organization, executive control in the factory, departmental reports, the general office, the order department, bills of material, drafting, pattern, purchasing, stores, machine shop and tool, shipping and receiving, time taking and cost departments, foundry systems, inspection methods, labor problems, wage systems, the fixing of piecework rates and the principles underlying good management. A bibliography of works management presents brief reviews of books bearing directly on that subject.

FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters. Items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS RECORD,

Baltimore, Md., September 7.

Dullness continued in the Baltimore stock market during the past week, and the double holiday made the quiet even more pronounced. In the trading United Railways common sold from 14½ to 14¾; do. incomes, 50¾ to 50¾; do. funding 5s,

82½ to 83; do. do. scrip, 83 to 84; United 4s, 84½; Consolidated Gas, Electric Light & Power notes, 98; Consolidated Gas 5s, 108; Seaboard Company common, 20; Seaboard 4s, stamped, 82½; do. three-year 5s, 90½; do. 10-year 5s, 90½; do. adjustment 5s, 70; Consolidated Cotton Duck 5s, Mt. Vernon-Woodberry Cotton Duck 5s, 71½ to 71; G. B. S. Brewing 1sts, 41½.

Bank stock sold as follows: Exchange, 160; Union, 121½; First National, 135; Mercantile Trust sold at 138½; Fidelity & Deposit, 146 to 146½; American Bonding, 77½ to 75; Maryland Casualty, 95 to 96.

Other securities were traded in: Columbia & Greenville 1sts, 106; Macon Railway & Light 5s, 45½; Alabama Consolidated Coal & Iron 5s, 67; Lynchburg City 4s, 193½, 92½; Fairmont & Clarksville Traction 5s, 95½ to 96; Lexington Railway 5s, 89; Maryland & Pennsylvania incomes, 61; Alabama Consolidated Coal & Iron preferred, 41; Anacostia & Potomac 5s, guaranteed, 101½ to 101¾; Maryland Electric 5s, 97½ to 97¾; Northern Central Railway stock, 126½; Norfolk Street Railway 5s, 101; Georgia, Carolina & Northern 5s, 104½; Virginia Midland 2d, 100½; Baltimore City 4s, 195½, 99½; do. 5s, 191½, W. L., 104½.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended September 7, 1910.

Railroad Stocks.	Par.	Bid.	Asked.
Atlanta & Charlotte	100	100	100
Atlantic Coast Line	100	100	100
Atlantic Coast of Conn.	100	225	230
Charleston Consolidated	50	20	20
Georgia Sou. & Fla.	100	25	25
Georgia Sou. & Fla. 1st Pfd.	100	92½	92½
Georgia Sou. & Fla. 2d Pfd.	100	60	60
Maryland & Pennsylvania	100	22	24
Seaboard Company Common	100	195	20
Seaboard Company 2d Pfd.	100	40	42
Southern Railway (V. T.)	100	22	22
United Rys. & Elec. Co.	50	14½	14½

Bank Stocks.	Par.	Bid.	Asked.
Bank of Baltimore	100	121	125
Citizens	100	39	40
Druggists & Merchants	100	229	230
Exchange	100	100	100
Farmers & Merchants	100	40	47
First National	100	135	135
German-American	100	110	110
German	100	103	103
Howard	100	10	13
Mechanics	100	10	26
Merchants	100	178	178
Second National	100	115½	115½
Union	100	124½	124½

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
American Bonding	25	75	78
Baltimore Trust	100	165	167½
Mercantile Trust & Deposit	50	178	178
Union Trust	50	70	70
U. S. Fidelity & Guaranty	100	135	140

Miscellaneous Stocks.	Par.	Bid.	Asked.
Ala. Con. Coal & Iron	100	31	31
Ala. Con. Coal & Iron Pfd.	100	35	60
Con. Cotton Duck Common	50	6	6
Con. Cotton Duck Pfd.	50	10	20
Con. Gas, Elec. Lt. & P. Com.	100	56	60
Con. Gas, Elec. Lt. & P. Pfd.	100	96	100
Consolidation Coal	100	107	112
G. B. S. Brewing Co.	100	21½	21½
George's Creek Coal	100	8	10

Railroad Bonds.	Par.	Bid.	Asked.
Atlanta & Birmingham 4s.	100	78	78
Atlantic Coast 1st 4s.	100	93	93
Atlantic Coast Conv. Deben. 4s.	100	95½	97½
At. Coast (Conn.) 4s, Ctrf.	100	88	88
Atlantic Coast (Conn.) 5s, Ctrf.	100	103	103
Atlantic Coast L. & N. Col. Tr. 4s.	100	91	91
Balto. & Harborsburg 5s.	100	103	103
Balto. & Harborsburg Ext. 5s.	100	102½	105½
Charleston & West. Car. 5s.	100	109	109
Charl. Col. & Aug. 7s.	100	89½	95
Coal & Coke Ry. 5s.	100	99	100½
Col. & Green. 1st 6s.	100	105½	106½
Florida Southern 4s.	100	89	91
Georgia & Alabama 5s.	100	102½	104½
Geo. Caro. & North. 1st 5s.	100	104½	104½
Georgia Pacific 1st 6s.	100	110	110
Geo. South. & Fla. 1st 5s.	100	94½	107
Macon, Dublin & Sav. 5s.	100	94½	94½
Maryland & Panna. 4s.	100	85	88
Petersburg Class A 5s.	100	107	107
Petersburg Class B 6s.	100	112	112
Pied. & Cumb. 1st 5s.	100	99	99½
Potomac Valley 1st 5s.	100	104	104
Raleigh & Augusta 1st 6s.	100	111	111
Savannah, Fla. & West. 5s.	100	107	107
Seaboard Air Line 4s.	100	83	83
Seaboard 4s, Stamped.	100	82½	83
Seaboard Adjustment 5s.	100	99½	99½
Seaboard 10-year 5s.	100	99½	99½
Seaboard 3-year 5s.	100	99½	99½
Seaboard & Roanoke 5s.	100	104	104
Seaboard & Roanoke 6s.	100	100	100
Silver Springs, Ocala & Gulf 4s.	100	85	85
Southern Ry. Con. 5s.	100	105	105
Virginia Mid. 2d 6s.	100	100	100½
Virginia Mid. 4th 6s.	100	106	106
Virginia Mid. 5th 5s.	100	103	103
Washington Term. 3½s.	100	89	89
Washington & Vandemere 4½s.	100	90	90
Western Maryland 4s.	100	84½	84½
Western N. C. Con. 6s.	100	105½	105½
W. Va. Con. 1st 6s.	100	100	100

Street Railway Bonds.	Par.	Bid.	Asked.
Anacostia & Potomac 5s.	100	101	101
Anacostia & Potomac 5s, Gtd.	100	102½	102½
Augusta Ry. & Elec. 5s.	100	101½	101½
Balto. City Pass. 5s.	100	99½	99½
Balto. Sp. Pt. & C. 4½s.	100	90	92
Balto. Trac. 1st 5s.	100	106	106
Central Ry. Bal. Con. 5s.	100	100	100
Charleston City Ry. 5s.	100	92	93
Charleston Con. Elec. 5s.	100	106	106
City & Suburban 5s, Balto.	100	101	102½
City & Suburban 5s, Wash.	100	101	102½
Fair & Clarks. Trac. 5s.	100	95½	96½

Knoxville Trac. 5s.	102	102
Lexington Ry. 1st 5s.	90	90
Macon Ry. & Lt. 5s.	95	95
Maryland Elec. Rys. 5s.	97½	97½
Memphis Street Ry. 5s.	98	98
Metropolitan 5s, Wash.	105	105
Newport News C. P. 5s.	90	90
Norfolk & Ports. Trac. 5s.	80	82½
Norfolk Ry. & Lt. 5s.	90	97½
Norfolk St. Ry. 5s.	101	104½
Richmond Traction 5s.	102	102
United Rys. 1st 4s.	84	84½
United Rys. Inc. 4s.	59½	59½
United Rys. Fdg. 5s.	83	83½

Miscellaneous Bonds.	Par.	Bid.	Asked.
Ala. C. Coal & Iron 5s.	70	70	70
Atlanta Gas 1st 5s.	101½	101½	101½
Consolidated Gas 5s.	107½	107½	108
Consolidated Gas 4½s.	90	91	91
Con. Gas, E. L. & P. notes.	92½	92½	92½
Consolidation Coal Ref. 4½s.	91½	91½	92½
G. B. S. Brew. 1st 4s.	41	42	42
G. B. S. Brew. Inc. 5s.	5	5	8½
Maryland Steel Co. 5s.	99	99	99
Mt. V. & Wood. Cot. D. 5s.	70	71½	71½
Un. Elec. L. & P. 4½s.	87	90	90

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending September 3, 1910.

Bid.	Asked.
Abbeville Cotton Mills (S. C.)	75
Alken Mfg. Co. (S. C.)	90
American Spinning Co. (S. C.)	100
Anderson Cotton Mills (S. C.)	50
Arkwright Mills (S. C.)	100
Augusta Factory (Ga.)	60
Avondale Mills (Ala.)	116
Belton Mills (S. C.)	130
Bibb Mfg. Co. (Ga.)	114
Brandon Mills (S. C.)	90
Cabarrus Cotton Mills (N. C.)	125
Chadwick-Hoskins Mfg. Co. (N. C.)	100
Chadwick-Hoskins Mfg. Co. (N. C.)	100
Chadwick-Hoskins Mfg. Co. (N. C.)	100
Chiquola Mfg. Co. (S. C.)	170
Clifton Mfg. Co. (S. C.)	105
Clifton Mfg. Co. (S. C.) Pfd.	101
Clinton Cotton Mills (S. C.)	90
Columbia Mfg. Co. (Ga.)	93
Courtenay Mfg. Co. (S. C.)	90
Dallas Mfg. Co. (Ala.)	110
Darlington Mfg. Co. (S. C.)	80
Drayton Mfg. Co. (Ala.)	100
Eagle & Phenix Mills (Ga.)	117
Easley Cotton Mills (S. C.)	170
Enoree Mfg. Co. (S. C.)	65
Enoree Mfg. Co. (S. C.)	55
Enterprise Mfg. Co. (Ga.)	190
Exposition Cotton Mills (S. C.)	200
Gaffney Mfg. Co. (S. C.)	75
Gainesville Cotton Mills (Ga.)	70
Granby Cot. Mills (S. C.) 1st Pfd.	35
Graniteville Mfg. Co. (S. C.)	160
Greenwood Cotton Mills (S. C.)	58
Grindel Mills (S. C.)	105
Henrietta Mills (N. C.)	160
King Mfg. Co. John P. (Ga.)	90
Lancaster Cotton Mills (S. C.)	130
Lancaster Cot. Mills (S. C.) Pfd.	117
Langley Mfg. Co. (S. C.)	117
Laurens Cotton Mills (S. C.)	130
Limestone Mills (S. C.)	150
Lockhart Mills (S. C.)	90
Lockhart Mills (S. C.) Pfd.	99
Loray Mills Pfd.	95
Marlboro Cotton Mills (S. C.)	75
Mayo Mills (N. C.)	165
Mills Mfg. Co. (S. C.)	100
Mills Mfg. Co. (S. C.) Pfd.	102
Monarch Mills (S. C.)	110
Monarch Cotton Mills (S. C.)	102
Newberry Cotton Mills (S. C.)	125
Norris Cotton Mills (S. C.)	127½
Olympia Cot. Mills (S. C.) 1st Pfd.	90
Orangeburg Mfg. Co. (S. C.) 1st Pfd.	90
Orr Cotton Mills (S. C.)	100
Pacolet Mfg. Co. (S. C.)	101
Pacolet Mfg. Co. (S. C.) Pfd.	100
Pelzer Mfg. Co. (S. C.)	150
Piedmont Mfg. Co. (S. C.)	175
Poe Mfg. Co. (S. C.)	170
Richland Cotton Mills 1st Pfd.	45
Raleigh Cotton Mills (N. C.)	100
Roanoke Mills (N. C.)	150
Saxon Mills (S. C.)	127
Sibley Mfg. Co. (Ga.)	71
Spartan Mills (S. C.)	130
Springfield Mills (S. C.)	100
Tappan Mills (S. C.)	250
Trion Mfg. Co. (S. C.)	70
Union-Buffalo Mills (S. C.) 1st Pfd.	70
Victor Mfg. Co. (S. C.)	130
Warren Mfg. Co. (S. C.)	107
Warren Mfg. Co. (S. C.) Pfd.	106
Washington Mills (Va.)	28
Washington Mills (Va.) Pfd.	106
Whitney Mfg. Co. (S. C.)	120
Williamson Mills (S. C.)	120
Woodruff Cotton Mills (S. C.)	125
Woodside Cotton Mills (S. C.)	105
Woodside Cot. Mills (S. C.) Pfd.	100

Bid.	Asked.
Abbeville Cotton Mills (S. C.)	75
Alken Mfg. Co. (S. C.)	90
American Spinning Co. (S. C.)	100
Anderson Cotton Mills (S. C.)	50
Arkwright Cotton Mills (S. C.)	100
Augusta Factory (Ga.)	60
Avondale Mills (Ala.)	116
Belton Mills (S. C.)	130
Bibb Mfg. Co. (Ga.)	114
Brandon Mills (S. C.)	90
Cabarrus Cotton Mills (N. C.)	125
Chadwick-Hoskins Mfg. Co. (N. C.)	100
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Chadwick-Hoskins Mfg. Co. (N. C.)	100
Chiquola Mfg. Co. (S. C.)	170
Clifton Mfg. Co. (S. C.)	105
Clifton Mfg. Co. (S. C.) Pfd.	101
Clinton Cotton Mills (S. C.)	90
Columbia Mfg. Co. (Ga.)	93
Courtenay Mfg. Co. (S. C.)	90
Dallas Mfg. Co. (Ala.)	110
Darlington Mfg. Co. (S. C.)	80
Drayton Mfg. Co. (Ala.)	100
Eagle & Phenix Mills (Ga.)	117
Easley Cotton Mills (S. C.)	170
Enoree Mfg. Co. (S. C.)	65
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Exposition Cotton Mills (S. C.)	200

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Clifton Mfg. Co. (S. C.) Pfd.	101
Clinton Cotton Mills (S. C.)	90
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Courtenay Mfg. Co. (S. C.)	90
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Alken Mfg. Co. (S. C.)	90
American Spinning Co. (S. C.)	100
Anderson Cotton Mills (S. C.)	50
Arkwright Cotton Mills (S. C.)	100
Augusta Factory (Ga.)	60
Avondale Mills (Ala.)	116
Belton Mills (S. C.)	130
Bibb Mfg. Co. (Ga.)	114
Brandon Mills (S. C.)	90
Cabarrus Cotton Mills (N. C.)	125
Chadwick-Hoskins Mfg. Co. (N. C.)	100
Chadwick-Hoskins Mfg. Co. (N. C.)	100
Chadwick-Hoskins Mfg. Co. (N. C.)	100
Chiquola Mfg. Co. (S. C.)	170
Clifton Mfg. Co. (S. C.)	105
Clifton Mfg. Co. (S. C.) Pfd.	101
Clinton Cotton Mills (S. C.)	90
Columbia Mfg. Co. (Ga.)	93
Courtenay Mfg. Co. (S. C.)	90
Dallas Mfg. Co. (Ala.)	110
Darlington Mfg. Co. (S. C.)	80
Drayton Mfg. Co. (Ala.)	100
Eagle & Phenix Mills (Ga.)	117
Easley Cotton Mills (S. C.)	170

Established 1835
The Merchants National Bank
 South and Water Sts., BALTIMORE, MD.
 DOUGLAS H. THOMAS, President.
 WM. INGLE, Vice-President and Cashier.
 J. C. WANDS, Asst. Cashier.
 JOHN B. H. DUNN, Asst. Cashier.
 Capital, \$1,500,000
 Surplus and Profits, \$900,000
 Deposits, \$12,000,000
 Accounts of Banks, Bankers, Corporations and
 Individuals solicited. We invite correspondence.

JOHN NUVEEN & CO.
 1st Nat. Bank Bldg., CHICAGO
 We purchase SCHOOL, COUNTY and MUNI-
 CIPAL BONDS. Southern Municipal Bonds
 a Specialty.
 Write us if you have bonds for sale.

THE FIRST NATIONAL BANK
 OF KEY WEST, FLA.
 United States Depository and Disbursing
 Agent.
 Capital - - - - - \$100,000
 Surplus and Undivided Profits - 40,000
 A general banking business transacted.
 Special attention given to collections.

DELAWARE TRUST CO.
 WILMINGTON, DEL.

EDWARD T. CANBY, President.
 J. ERNEST SMITH, General Counsel and
 Vice-President.
 HARRY W. DAVIS, Secretary.

Fully Equipped Department for the
 Organization of Corporations under
 advice of Counsel, and for the Regis-
 tration of Corporations as required
 by the Delaware Law.
 Represents over 500 Domestic and
 Foreign Corporations.
 The Delaware Corporation Law is
 Broad, Liberal, Safe and Stable.
 Granting and annual taxes low.

MANUFACTURERS and JOBBERS

Frequently find it necessary to have
 BANKING FACILITIES in addition
 to those offered by local banks.

FIRST NATIONAL BANK OF RICHMOND, VA.

With assets of nine million dollars, offers just the
 additional facilities required.

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 Jno. M. Miller, Jr., Vice-Pres. and Cashier.

Hugh MacRae & Co.
 BANKERS

MISCELLANEOUS SOUTHERN SECURITIES
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Railroad Securities
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F. J. LISMAN & CO.

Specialists in Steam R. R. Securities
 Members New York Stock Exchange,
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 Land Title & Trust Bldg., Philadelphia.

SURETY BONDS

Fidelity and Deposit Co.
 OF MARYLAND

Home Office, BALTIMORE, MD
 Assets Over \$5,000,000

Pioneer Surety Co. of the South.
 Becomes Surety on bonds of every de-
 scription.

AGENTS IN ALL PRINCIPAL CITIES

HARRY NICODEMUS, Sec'y and Treas. EDWIN WARFIELD, President

GEO. M. CLARK
Auditor and Public Accountant
 Room 315 James Building
 CHATTANOOGA, TENN.

INVESTMENT
SECURITIES

Southern Stocks and Bonds
 Municipal and Corporation
 Cotton Mill Stock a Specialty

WM. S. GLENN Broker - SPARTANBURG, S. C.

CAPITAL AND SURPLUS

\$3,500,000

THE BALTIMORE TRUST CO.
 BALTIMORE, MD.

Solicits Accounts of Banks, Bankers, Corporations and Individuals.
 Interest Allowed on Deposits Subject to Check.
 Special Rates Made on Time Deposits.

OFFICERS

THOMAS H. BOWLES, President DOUGLAS H. GORDON, First V.-Pres.
 G. C. MORRISON, Second V.-Pres. SAMUEL C. ROWLAND, Third V.-Pres.
 C. D. FENHAGEN, Secretary-Treasurer

The National Exchange Bank
 OF BALTIMORE, MD.

Hopkins Place, German and Liberty Sts.
 Capital, \$1,000,000
 July 15, 1908, Surplus and Profits, \$871,631.80

OFFICERS:

WALDO NEWCOMER, President.
 SUMMERFIELD BALDWIN, Vice-Pres.
 R. VINTON LANSDALE, Cashier.
 C. G. MORGAN, Asst. Cashier.
 Accounts of Mercantile Firms, Corporations,
 Banks, Bankers and Individuals Invited.

THE NORTHERN CENTRAL RAILWAY
COMPANY

GENERAL OFFICE

BALTIMORE, Md., 5th August, 1910.

A special meeting of the Stockholders of
 this Company will be held on Friday, the
 fourteenth day of October, 1910, at twelve
 o'clock noon, in the General Office of the
 Company, at the southeast corner of Calvert
 and Centre Streets, Baltimore, Md., to con-
 sider and take appropriate action on the
 following subjects in the order named, viz.:
 FIRST: On the approval, or disapproval,
 of the proposed lease of the railway, prop-
 erty, and franchises of The Northern Cen-
 tral Railway Company to The Pennsylvania
 Railroad Company, for 999 years, in the
 form and upon the terms and conditions ap-
 proved by the Directors of each Company.
 SECOND: Upon an increase in the Com-
 pany's outstanding capital stock to the ex-
 tent, and for the purposes, recommended in
 the Special Committee's report, as approved
 and adopted by the Board of Directors; and
 also upon any and all questions and matters
 relative to each of the said subjects, and
 any and all action necessary and appropriate
 in connection therewith.
 A copy of the Special Committee's report
 and of the action of the Board of Directors
 will be mailed to each Stockholder.
 By order of the Board of Directors,
 LEWIS NEILSON,
 Secretary.

\$450,000.00 Five Per Cent.

**Temple Northwestern Rail-
 way Bonds**

The Temple Northwestern Railway Com-
 pany of Texas has placed on the market
 \$450,000 of its First Mortgage Five Per Cent.
 Gold Bonds.

These bonds are registered on 35 miles of
 completed railroad, issued under and by au-
 thority of the Railroad Commission of Texas.
 Bonds to be delivered in amounts of \$150,000
 each as each ten miles of railroad is com-
 pleted, said bonds being in the denomination
 of \$500 and \$1000 each, interest payable semi-
 annually.

These bonds are issued on completed rail-
 road from Temple to Gatesville.
 This road proposes to extend its line fur-
 ther from Gatesville, a distance of 67 miles,
 to Comanche, Texas, making a total of 102
 miles.

The Temple Northwestern Railroad offers
 the best security for railway bonds in Texas,
 and an attractive proposition can be made to
 purchasers.

Address
 W. J. McDANIEL,
 Pres. and Gen. Mgr. T. N. W. Ry.,
 Temple, Texas.

SOUTHERN TRUST COMPANY

HAWKINSVILLE, GEORGIA

Paid in Capital Stock, \$100,000

Buy and sell real estate, stocks, bonds,
 mortgages and other securities. Make
 investments and act as executor, ad-
 ministrators, trustee, receiver for firms,
 individuals and corporations.

Real estate loans and preparing ab-
 stract of titles a specialty.

6% interest allowed on time deposits.
 Correspondence solicited.

T. B. BAGAN, Pres. E. J. HENRY, Vice-Pres.
 H. E. COATES, Sec. & Treas.

PAULSON, LINKROOM & CO.

COMMISSION MERCHANTS

COTTON YARNS

NEW YORK
 87-89 Leonard Street

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 120 Chestnut Street

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"AMERICAN"

The Value of a Transmission Rope

is measured by the amount of work you can get out of every
 dollar's worth—not by the first cost.

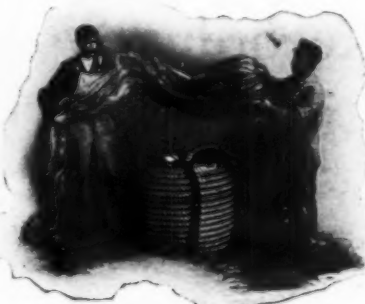
The essential requirements of a first-class driving rope are:

LONG LIFE

LITTLE STRETCH

THE LEAST AMOUNT OF
ATTENTION WHEN IN-
STALLED and GOOD
RUNNING QUALITIES.

After years of study and
 experimenting with rope drives
 we have developed in our



"American" Transmission Rope

a driving rope that combines all these requisites. IT IS NOT the CHEAP-
 EST rope in first cost. IT IS the MOST ECONOMICAL rope to buy, as it
 is made of the finest quality pure, selected long fibre manila laid up in our
 special lubricating compound. It requires no external dressing and is
 stretched in process of manufacture. You will find any slight difference in
 first cost soon balanced by the cost of dressing required by ropes not lubricated.
 Write us for samples and prices.

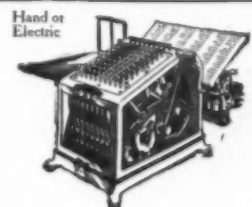
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Largest Makers of Fibre in the World

63-65 Wall Street

New York City

TRANSMISSION ROPE



You don't know
 unless you use one
 in how many ways

BURROUGHS

When out of every one adding and listing machine sold are Burroughs

Adding and Listing Machine

will help you with your business; large or
 small.

It will put short cuts in your book-
 keeping and save time and trouble in your
 accounting.

There are 65 styles—one of them
 just suits your needs.

Burroughs Adding Machine Co.

80 Burroughs Block,
 Detroit, Mich.

capital \$15,000. Business began August 29 with directors thus: W. L. Forbes, president; W. C. Barron, E. D. Dickey, J. C. Cannon and William Gilford.

Tex., Vernon.—The Farmers' State Bank, capital \$40,000, is reported organized with directors thus: Dr. H. H. Rhoads, J. F. White, Fred Streitt, W. H. Evans, E. Rhoads, F. L. Massie and A. J. Haney. Business is expected to begin about October 1.

Va., Mount Solon.—The Mount Solon Bank is reported to have begun business with \$10,000 capital. M. Bruce Whitmore, president; S. A. Stover, first vice-president; A. B. Reeves, second vice-president; W. B. Todd, cashier; directors, M. Bruce Whitmore, Dr. S. H. Burton, Newton Caracofe, A. T. Reeves, S. A. Stover, R. A. Todd, E. M. Dudley, A. R. G. Bass and S. L. Hess.

Va., Norfolk.—The Virginia National Bank of Norfolk has been approved; capital \$500,000; organizers, W. H. Taylor, J. W. Hunter, George W. Roper, L. D. Starke and W. D. Baldwin; officers, J. W. Hunter, president; John L. Roper, first vice-president; William C. Whittle, second vice-president; Hugh G. Whitehead, cashier; Washington Reed, assistant cashier; W. H. Taylor, general counsel. It is stated that the new bank will take over a large portion of the banking business of the Virginia Bank & Trust Co., which will be known as a savings branch.

NEW SECURITIES.

Ala., Hartsells.—Official: August 22 city voted \$28,000 of water and light 5 per cent. 20-year bonds. Denomination \$500. Date of opening bids not yet decided. J. H. Corbitt is Mayor and J. L. Day clerk.

Ark., Texarkana.—Reported that application is to be made to the Legislature permitting Miller county to issue \$400,000 of road bonds.

Fla., Jacksonville.—Press dispatches state that preliminary steps are being taken to sell the \$100,000 of street-paving bonds recently voted.

Fla., Orlando.—An election is to be held in Orange county October 4 to vote on \$1,000,000 of 4½ per cent. 50-year road bonds.

Fla., Fort Myers.—Reported voted: \$15,000 of water-works and fire-protection and \$35,000 of sewerage bonds.

Fla., St. Petersburg.—Reported voted: \$100,000 of 6 per cent. 30-year water-works, sewer, paving and fire-station bonds.

Ga., Columbus.—The sales of \$100,000 of 4½ per cent. 30-year bridge bonds recently reported are officially confirmed. Rhodes Brown is Mayor.

Ga., Crawford.—An election is to be held September 12 to vote on \$5000 of 6 per cent. school bonds. J. A. Roland is Mayor and R. S. McMahan, Clerk.

Ga., Crawford.—Reported that an election is to be held September 12 to vote on \$5000 of 6 per cent. school bonds.

Ga., Franklin.—Reported defeated: \$40,000 of road-improvement bonds.

Ga., Grantville.—Reported that an election is to be held September 13 to vote on \$12,000 of school bonds.

La., Homer.—Bids will be received by G. G. Gill, Town Clerk, until 10 A. M. September 15 for \$40,000 of 5 per cent. 20-year water-works bonds; denomination \$1000.

Ky., Brooksville.—An election is to be held in Bracken county November 8 to vote on \$45,000 of 4 per cent. courthouse bonds.

Ky., Louisville.—The question of issuing \$500,000 of Jefferson county school bonds is reported being agitated.

Ky., Murray.—November 8 an election is to be held to vote on \$35,000 of Calloway county courthouse bonds.

Ky., Harrodsburg.—An official letter says: "No bonds have been issued at this time. May do so this fall." H. L. Gibbs is clerk of Mercer county.

Ky., Louisville.—Reported that no sale was made September 1 of the \$350,000 of 4 per cent. 10-year refunding bonds.

Md., Thurmont.—Official: Local citizens purchased the \$18,000 of 5 per cent. 20-year electric-light-plant bonds voted April 12; denomination \$100. E. E. Black is secretary Board of Town Commissioners.

Miss., Jackson.—Notice is given that \$200,000 of bonds for the first and fifth supervisor's district, to be used in building good roads leading into Jackson, are to be issued by the Hinds county board of supervisors.

Miss., Oxford.—Reported that the Bank of Oxford was awarded at \$350 premium the \$30,000 of 6 per cent. 16 5-6-year average water, light and improvement bonds. W. L. Smith is city clerk.

Miss., Vicksburg.—Bids will be received until noon September 5 by J. D. Laughlin, clerk Board of Supervisors, for \$4300 of 5 per cent. Warren county road and bridge bonds.

Mo., Fulton.—S. A. Kean & Co. of Chicago are reported to have purchased \$19,000 of high-school and \$5000 of school-improvement 5 per cent. bonds at par, less expenses. J. W. McIntire is district secretary.

Mo., Hannibal.—Reported voted: \$20,000 of bridge bonds.

Mo., Warrenton.—Official: August 9 city voted \$10,000 of water and \$4000 of sewerage 5 per cent. 20-year bonds. Denomination \$500. Date of opening bids not yet set. Address George E. Hackman.

N. C., Wilmington.—Press dispatches state that all bids received September 1 for the \$100,000 of water and sewerage 4½ per cent. 40-year bonds were rejected and they will be reoffered.

N. C., Randleman.—An official letter says that \$50,000 of highway bonds are still on the market. S. Bryant is chairman of the Highway Commission.

Okla., Arapaho.—Official: Bids opened September 6 for \$40,000 of 6 per cent. water-works bonds. Address M. C. Main.

Okla., Britton.—Press dispatches state that a special election is to be held to vote on \$35,000 of water-works and \$15,000 of sewer bonds.

Okla., Calumet.—An official letter says that bonds have been sold. This probably refers to the \$10,000 of schoolhouse bonds voted August 18.

Okla., Enid.—R. J. Edwards of Oklahoma City is reported to have been awarded \$200,000 of high school bonds.

Okla., Kingfisher.—Reported defeated: \$28,000 of water-works bonds.

Okla., Kiowa.—Official: George E. Pinkston, town clerk, is offering at private sale \$18,000 of 6 per cent. 25-year water and light system extension and repair bond; denomination \$1000; dated August 1, 1910; maturity July 31, 1935.

Okla., Lawton.—The Thomas J. Bolger Co. of Chicago is reported to have been awarded \$280,000 of 5 per cent. 25-year water and sewer bonds.

Okla., Norman.—Bids will be received by A. R. Clement, city clerk, until 7:30 P. M. September 30 for \$15,000 of 5 per cent. 20-year sewer extension bonds.

S. C., Clinton.—Official: Bids will be received until noon September 20 by W. M. McMillan, Mayor, for \$10,000 of 5 per cent. 40-year refunding bonds.

Tenn., Gibson.—O. P. Parker, Mayor, writes: "We have no bond issue and do not contemplate any for several months." This denies the report that bonds are being offered.

Tex., Abilene.—A Chicago firm is reported to have purchased \$50,000 of street-improvement bonds.

Tex., Amarillo.—A New York bank and trust company is reported to have purchased an issue of paving bonds.

Tex., Austin.—The Attorney-General has approved bonds as follows: \$35,000 of 5 per cent. 30-year Hardin county road improvement; \$15,000 of 5 per cent. 10-40-year Lockhart City Hall; \$1200 of 5 per cent. 5-12-year Grayson county common school district No. 51; \$1995 of 5 per cent. 10-40-year Wharton refunding; \$12,000 of 5 per cent. 10-40-year Montague county common school district No. 43; \$4000 of 5 per cent. 10-20-year Cloud independent school district; \$600 of 5 per cent. 20-year Houston county common school district No. 25, and \$1000 of 5 per cent. 5-20-year district No. 24 schoolhouse; \$2000 of 5 per cent. 5-20-year Jones county common school district No. 25, and \$1000 of district No. 52.

Tex., Beaumont.—Official: Bids will be opened on November 1, 1910, by W. S. Davidson, chairman of Navigation and Canal Commissioners of Beaumont Navigation District of Jefferson County for \$493,000 of 5 per cent. 10-40-year bonds voted July 8, 1909, to deepen the Sabine-Neches canal. George D. Anderson is attorney.

Tex., Brownsville.—The County Commissioners have authorized the issuing of \$204,000 of 5 per cent. 5-30-year Cameron county drainage bonds.

Tex., Caldwell.—Press dispatches state that it is proposed to issue \$5000 of water-works improvement bonds.

Tex., Dallas.—Press reports state that the \$650,000 of water-works, sewer, school and street bonds have been approved and steps are to be taken to place them on the market.

Tex., Penelope.—Press reports state that \$7500 of 10-40-year school district bonds are being offered at par and accrued interest.

This is the unsold portion of the \$12,500 bond issue.

Tex., San Angelo.—Reported that an election is to be held to vote on \$20,000 of street-paving bonds.

Tex., Vernon.—Reported voted: Bonds for water-works and sewers.

At Clinton, S. C., bids will be received until noon September 20 for \$10,000 of 5 per cent. 40-year refunding bonds. Further particulars will be found in the advertising columns.

FINANCIAL NOTES.

The Fidelity & Deposit Co., Baltimore, Md., has opened its new casualty department.

The Farmers' Bank of Siloam Springs, Ark., is reported to have increased its capital from \$15,000 to \$50,000.

The Farmers' State Bank of Garber, Okla., according to press dispatches, has increased its capital from \$5000 to \$15,000.

CONDENSED REPORT TO COMPTROLLER

The First National Bank OF BIRMINGHAM, ALA.

ALABAMA'S FIRST MILLION-DOLLAR BANK

THURSDAY, SEPTEMBER 1, 1910.

RESOURCES.		LIABILITIES.	
Loans and Discounts.....	\$7,196,752.66	Capital Stock.....	\$1,000,000.00
Overdrafts.....	113.63	Surplus and Profits.....	916,584.08
U. S. Bonds and Premiums.....	1,118,500.00	Circulation.....	983,800.00
State of Alabama Bonds....	157,500.00	DEPOSITS.	
Other Stocks and Bonds....	233,100.00	Individual.....	\$7,679,039.59
CASH.		Bank.....	952,201.55
In Vault.....	\$ 903,922.56	United States..	95,668.39
With Banks....	1,967,404.76		
With U. S.			
Treasurer....	50,000.00		
	\$2,921,327.32		\$8,726,909.53
	\$11,627,293.61		\$11,627,293.61

UNITED STATES DEPOSITARY

OFFICERS

W. P. G. HARDING, President.

J. H. WOODWARD, Vice-President.

J. H. BARR, Vice-President.

THOMAS HOPKINS, Cashier.

F. S. FOSTER, Assistant Cashier.

THOS. BOWRON, Assistant Cashier.

J. E. OZBURN, Secretary Savings Department.

Deposits Sept. 1, 1910.....\$8,726,909.53

Deposits Sept. 1, 1909.....7,026,205.28

Increase.....\$1,700,704.25

PARTICULAR ATTENTION GIVEN TO COLLECTIONS
DIRECT CONNECTION AT ALL ALABAMA POINTS

Henry R. Worthington

Worthington Recording Liquid Weigher



Measures Liquids by Weight

Affords Accuracy Without Regard to Temperature.

No Wear—No Maintenance Cost.

Invaluable for handling Hot Feed Water—Fuel Oil—Sugar Solutions—Chemicals—Condensation Returns.

Send for Catalogue W-182-S.

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